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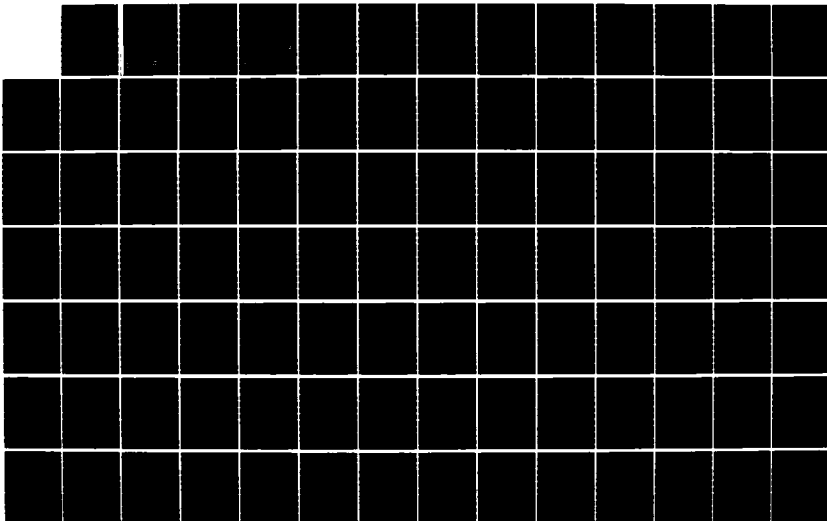
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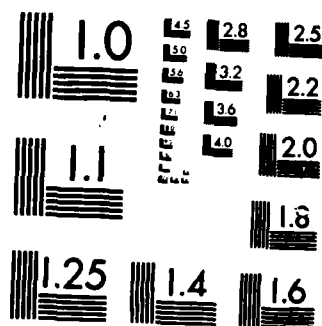
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NORFOLK, VIRGINIA

IMPORTANT MEROPLANKTON OF THE  
LOWER CHESAPEAKE BAY AND PROPOSED  
NORFOLK DISPOSAL SITE.  
II: CRUSTACEANS AND ICHTHYOPLANKTON

By

Arthur J. Butt  
Raymond W. Alden III  
Robert J. Young, Jr.

Final Report  
For the period ending December 1984

Prepared for the  
Department of the Army  
Norfolk District, Corps of Engineers  
Fort Norfolk, 803 Front Street  
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## TABLE OF CONTENTS

SECTION	PAGE
INTRODUCTION .....	1
The Zooplankton Community - A Review .....	3
METHODS .....	6
Study Area .....	6
Sampling Regime .....	7
Abundance (Statistical) Analysis .....	10
RESULTS .....	11
Community Structure .....	12
DISCUSSION .....	24
Larval Recruitment .....	24
SUMMARY AND CONCLUSION .....	29
ACKNOWLEDGEMENTS .....	30
REFERENCES .....	31
APPENDICES (with List of Figures and List of Tables) .....	36
Figures .....	39
Tables .....	91

## LIST OF FIGURES

FIGURE	PAGE
1 Study area off Virginia Beach, Virginia .....	8

# LIST OF TABLES

TABLE		PAGE
1	Larval decapod crustaceans collected from the Lower Chesapeake Bay and Norfolk Disposal Site during 1982 and 1983 .....	13
2	Larval fishes collected from the Lower Chesapeake Bay and Norfolk Disposal Sites during 1982-1983 .....	21

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**IMPORTANT MEROPLANKTON OF THE LOWER  
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II: CRUSTACEANS AND ICHTHYOPLANKTON**

By

\*Arthur J. Butt, \*\*Raymond W. Alden III,  
and \*\*\*Robert J. Young, Jr.

**INTRODUCTION**

Estuaries serve as a major interface between the upland river drainage and ocean exchange. This ecological zone is unique in its capacity to act as a high nutrient trap, resulting in an ideal nursery for numerous larval and juvenile forms, as well as a suitable habitat for adult foraging. However, dredging and channelization operations can adversely affect the estuarine resources in a variety of ways. Open ocean disposal may be the most economical and widely used disposal method. Some influences are immediate, while others are more subtle, and may persist over the long-term, but are no less severe. Those species that frequent the estuary may be impacted.

Dredged materials are reported to affect the larvae of many aquatic forms. An associated bioaccumulation of toxic organics

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and inorganics from resuspension of contaminated sediments may occur. Growth inhibition and lack of resistance to stress are noticeable responses. Short-term physiological alterations associated with dredging often decrease the general fitness of fishes during the critical larval development (Bell, 1973). Interferences with migrating species are also noted (Thompson, 1973). Vision may be impaired and olfactory cues are often masked due to suspended silts. These physiological functions are important to both prey and predatory species.

It is well documented that zooplankton play an important role in the transfer of energy through the aquatic food chain. Zooplankton populations also include larvae and reproductive stages of many benthic and nektonic species that have significant commercial values many of these species use the Chesapeake Bay as a nursery area. Therefore, their larval stages represent potential resources which must be considered in environmental assessments of man's activities. These factors, therefore, make the studies of zooplankton population dynamics of particular interest when investigating environmental perturbations such as dredging operations and open water disposal.

The present study was designed to provide a descriptive assessment of the zooplankton community, in particular, the meroplankton and ichthyoplankton of the Hampton Roads, lower Chesapeake Bay, and Norfolk Disposal Sites (NDS). Stations representative of the dredging and open-ocean disposal sites were sampled with respect to dominant species, ecological associations, spatial and temporal abundances and diversity.

## The Zooplankton Community - A Review

The zooplankton community is a complex assemblage of organisms. The term plankton applies to both plants (phytoplankton) and animals (zooplankton) that passively drift with water movements. This definition may be an oversimplification since many forms actively migrate in the vertical and/or horizontal planes in varying degrees. Typically, zooplankton classifications are reduced to encompass the proportion of time an organism's life history stage may be spent in the planktonic community. The holoplankton include animals such as copepods which characteristically spend their entire life cycle in the water column. Animals that have only a portion of their life in the plankton are termed meroplankton. They are typified by the larvae and early postlarval stages of many decapod crustaceans, molluscs, polychaetes and fish. A third grouping is the tychoplankton, or "accidental" plankton, including many benthic forms which are swept into a planktonic mode via tidal and wind currents. This group also may include organisms that are active in the water column due to some behavioral or migrating pattern such as swarming (e.g., certain polychaetes and shrimps) (Dauer et al., 1980).

A review of the literature yields a paucity of information on the general composition, abundance and seasonality of zooplankton in the lower Chesapeake Bay proper (Atkinson, 1973; Browne, 1974; Crandall, 1974; Jacobs, 1978; Grant & Olney, 1979). In general, the studies show domination of the zooplankton community by a few major forms such as copepods. The few specific

planktonic groups examined in the lower Chesapeake Bay and surrounding estuaries were largely limited to individual species, their life cycles, distribution or general ecology. Examples include: decapod larvae (Sandifer, 1972, 1973, 1975; Goy, 1976), bivalve larvae (Chanley and Andrews, 1971), cladocerans (Bryan and Grant, 1973; Bryan, 1974, 1977, 1979, 1983; Gilchrist, 1979), chaetognaths (Grant, 1963, 1977), polychaete larvae (Orth, 1971), and coelenterates (Calder, 1971; Feigenbaum and Kelly, 1982). Grant (1977) and Jacobs (1977) both reported two definable, seasonal zooplankton populations in the lower Chesapeake Bay. A winter-spring community typically occurred with peak abundances of holoplankton around February or March. The summer-fall assemblage was far more diverse due to the presence of meroplankton, more specifically, fish eggs and larvae and decapod crustacean larvae. Their principal reproductive periods are reported from June through August and peak around August (Goy, 1976; Olney, 1978).

Recent evaluations of benthic communities in stressed environments have become the focus of major environmental assessment studies. In conjunction with the benthic studies, increased interest in life history studies of many aquatic forms has occurred, including commercially important shellfish and fish species that feed on benthic forms. As a result, the meroplankton have received increasing attention, but again, only within specific taxonomic groups (Morgan, 1980; McConaugha and Provenzano, 1980; Johnson, 1981; Provenzano *et al.*, 1983; Olney, 1983). It is unfortunate that studies of larval fishes have been neglected in most surveys.

The present study overlaps a portion of the geographic coverage of a few of the earlier studies mentioned previously; however, it encompasses a much broader view of the community structure which has been previously overlooked. This report represents an overview of spatial-temporal patterns of species of commercial interest, as well as a characterization of communities of numerically important organisms comprising the meroplankton of the Bay ecotone.



## METHODS

### Study Area

Chesapeake Bay represents the drowned river valley of the pleistocene-incised Susquehanna River Valley (Ludwick, 1972). It is classified as moderately stratified with semi-diurnal tides (Pritchard, 1967). Chesapeake Bay and its tributaries constitute the largest estuary in the United States. The two southernmost tributaries of the Bay are the James and Elizabeth Rivers. In recent years, both have received increased environmental attention due to industrial pollutants reported throughout their systems. This study was conducted in the Hampton Roads area (lower James River - Elizabeth River confluence), the lower Chesapeake Bay and the adjacent continental shelf.

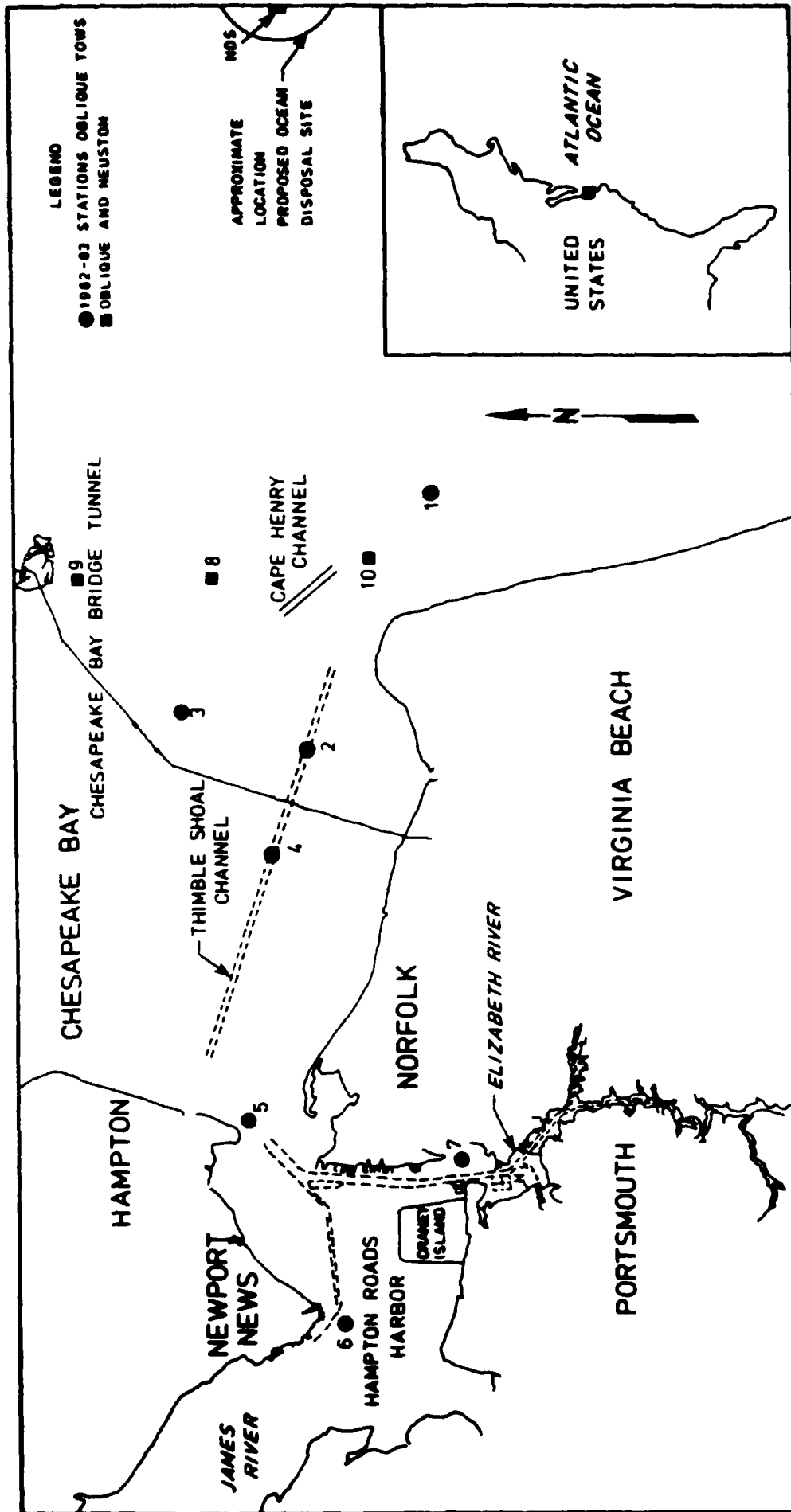
The Chesapeake Bay mouth measures 15 km between Cape Henry and Cape Charles, and varies in depth from 4m in shoal areas to 14m in the three navigation channels. The circulation of the Chesapeake Bay mouth has a two-layer flow pattern. There is a net outflow of less dense, low salinity surface water layered over a net inflow of more dense, higher salinity bottom water (Pritchard, 1955; Boicourt, 1981). Inflow of shelf water occurs in the lower layer of the Chesapeake Channel and at the northern side of the North Channel. The location of major fresh water sources on the Western shore of the Bay combines with the Coriolis force to confine the more saline water from the shelf to the eastern side of the Bay (Boicourt, 1973). The Coriolis effect is also evidenced by a slanted pycnocline that may intersect the surface near the northern channel.

Wind strength and direction can have a strong influence on water flowing out of the Bay. Outflowing surface water from the Bay travels toward the south as a pronounced low salinity plume. It is influenced by both the Coriolis effect (Boicourt, 1973, 1981; Johnson, 1976) and the general southerly drift of the shelf water off the Chesapeake Bay region of the Middle Atlantic Bight (Bumpus, 1973). However, inshore at the Bay mouth/continental shelf interface, the flow pattern becomes much more dynamic due to the synergistic interactions of wind, vertical decoupling at the pycnocline and tidal prism patterns (Boicourt and Hacker, 1976; Boicourt, 1981; Johnson et al., 1983).

#### **Sampling Regime**

A total of eleven (11) stations were selected to monitor baseline conditions prior to the proposed deepening of navigation channels in Hampton Roads and the lower Chesapeake Bay and the associated open ocean disposal site (Fig. 1). Three of the stations were located in the mouths of the James and Elizabeth Rivers and their confluence (Stations 5, 6, and 7). The Thimble Shoals and Chesapeake Bay navigation channels were sampled with a four station transect (Stations 1, 2, 4 and 10), while three additional stations were distributed across the channels of the middle and upper Chesapeake Bay mouth (3, 8 and 9). The last station designated the Norfolk Disposal Site (NDS) was placed in the middle of the proposed dredged material disposal site. This station was approximately 27 km east of the Bay mouth.

Figure 1. Study area off Virginia Beach, Virginia.



Monthly samples were scheduled for the Bay mouth (Stations 8, 9 and 10) and NDS stations in order to monitor the two-definable seasonal zooplankton communities. A winter versus summer seasonal sampling regime was maintained for the inner most stations 4, 5, 6 and 7) with monthly sampling conducted from October through April and semi-monthly sampling made from May through September during the more active reproductive periods. Due to the major volume of water exchange in and around the Thimble Shoal Chesapeake Channels, Stations 1, 2, and 3 were sampled year-round on a semi-monthly schedule.

The plankton samples were collected with oblique, bongo tows from approximately one meter above the bottom to the surface. An identical second tow was performed. A duplicate sequence of tows was performed with a different mesh net producing a total of eight oblique tows per station. The two mesh sizes were  $153\mu$  and  $355\mu$ . In addition, the top 12-15 cm of the sea surface was sampled with a one-meter neuston net. These two tow types sampled identical cross-sectional areas and were made with the  $353\mu$  mesh. They were taken at Stations 8, 9, 10 and NDS. Four neuston tows were made per station for five minutes each. Calibrated mechanical flowmeters were used in each net to calculate relative abundance per volume.

Ancillary data was collected at each station and during all sampling months. Such data included temperature, salinity, conductivity, and dissolved oxygen (DO) readings taken one meter below the surface and one meter above the bottom. The Beckman RS-5 induction salinometer was used for all physical data collection except DO which employed an air calibrated YSI probe.

Measurements of phytoplankton standing crop were also taken (Marshall and Alden, 1985).

The samples were fixed with 7% buffered formaldehyde and transported to the laboratory for sorting. The CVS subsampling method was employed using sieve fractions of 2000 $\mu$ , 850 $\mu$ , 600 $\mu$ , and 350 $\mu$ , (Alden et al., 1982). Identifications and enumerations of meroplankton, ichthyoplankton and tytoplankton were made.

### **Abundance (Statistical) Analysis**

Species selections were based on either numerical or commercial importance. The a priori criteria for "numerical important" groups was based on abundance estimates of 10/m<sup>3</sup> in at least 5% of the observations. Commercially important groups were selected for species represented by the local commercial and recreational fisheries.

## RESULTS

Over 240 life stages of diverse taxa were examined in the meroplankton collections taken from the lower Chesapeake Bay and NDS. A detailed list of the species is provided (Table A1). A summary of statistics for each taxonomic group in any given tow type/station combination is included (Table A2). The taxonomic groups considered "numerically important" along with site/tow type combination information is given in Table A3. The grand means for each site/tow type are presented for comparison purposes. Twenty taxonomic groups met the criteria: (in alphabetical order) bivalve larvae, Callianassa spp., Callinectes sapidus zoeae and megalopae, Cancer irroratus zoeae, Crangon septemspinosus larvae, Engraulidae fish eggs (Anchoa mitchilli?), unidentified fish eggs, gastropod larvae, larvaceans, Lucifer faxoni, Mysidopsis bigelowi, Neomysis americana, Pagurus spp. zoeae, phoronids, Pinnixa spp. zoeae, Pinnotheres spp. zoeae, Sciaenidae fish eggs, Uca (minax?) sp. zoeae, Upogebia affinis larvae, and xanthid larvae.

Certain of the groups were not truly meroplankton (e.g. larvaceans, phoronids, Lucifer faxoni and mysids). However, their occurrences were included because of their ecological role in the overall community structure of the study area.

A closer examination of potential commercially important groups in the region were added to the list. Most of the larvae were ichthyoplankton and included the following larval species: Bothus ocellatus, Etropus microstomus, Paralichthys dentatus, Scophthalmus aquosus, Trinectes maculatus, Cynoscion regalis, Leiostomus xanthurus, Micropogonias undulatus, Pomatomus saltatrix

and Brevoortia tyrannus. Ammodytes hexapterus was included because of its importance as food for other fish in the region. Bothid, sciaenid and other fish eggs were also included for comparative purposes.

Important taxonomic groups were assembled so that similar taxa would be found together (Table A3). The means and standard errors are presented only for cruises where there are at least one non-zero abundance value. The mean abundances of the groups at the various sites over time are presented for both oblique and neuston tows (when applicable) (Figs. A1 to A51). Fish species with trace levels less than  $.05/m^3$  were not included in tables or figures.

Results of blue crab, rock crab and oyster larvae abundances were detailed in another report and are not included (Butt et al., 1985). Similar taxonomic groups were discussed for ease of presentation. The most common and/or most abundant species are initially presented followed by less dominant (or subordinate) forms.

### Community Structure

Eleven noncommercial decapod crustaceans were presented as "numerically important" from over fifty (50) different crustacean identified during the study period (Table 1). Among the meroplankton the larvae of the mud shrimp Upogebia affinis were found throughout the lower Bay and Bay mouth stations in moderate numbers (Table A2). However, highest concentrations were reported along the inner Thimble Shoal Channel stations (2, 4 and 5) and

TABLE 1

LARVAL DECAPOD CRUSTACEANS COLLECTED FROM  
THE LOWER CHESAPEAKE BAY AND NORFOLK DISPOSAL SITE  
DURING 1982 AND 1983

Class Crustacea

Subclass Malacostraca  
Order Decapoda

Suborder Natantia  
Section Penaeidae  
Family Sergestidae  
Lucifer faxoni  
Acetes americanus

Family Penaeidae  
Trachypenaeus constrictus  
Penaeus spp.

Section Caridea  
Family Palaemonidae  
Palaemonetes spp.

Family Alpheidae  
Alpheus normanni  
A. heterochaelis

Family Ogyridae  
Ogyrides limicola

Family Hippolytidae  
Hippolyte pleuracantha

Family Crangonidae  
Crangon septemspinosa

Suborder Reptantia  
Section Macrura  
Family Callinassidae  
Callinassa A  
Callinassa B  
Callinassa C

Family Upogebiidae  
Upogebia affinis

Family Laomediidae  
Naushonia crangonoides



TABLE 1  
(Continued)

Section Anomura

Family Porcellanidae

Eucramus praelongus

Polyonyx gibbesi

Suborder Reptantia (Continued)

Section Anomura (Continued)

Family Paguridae

Pagurus longicarpus

P. pollicaris

Pagurus spp.

Family Hippidae

Emerita talpoida

Family Albuneidae

Lepidopa websteri (?)

Section Brachyura

Family Portunidae

Callinectes sapidus

Ovalipes spp.

Portunus spp.

Family Cancridae

Cancer irroratus

Family Xanthidae

Eurypanopeus depressus

Hexapanopeus angustifrons

Neopanope texana sayi

Panopeus herbstii

Rhithropanopeus harrisii

Family Pinnotheridae

Dissodactylus mellitae

Pinnixa chaetopterana

Pinnixa cylindrica

Pinnixa sayana

Pinnixa spp.

Pinnotheres maculatus

Pinnotheres ostreum

Pinnixia A

Pinnotheres crab

Family Grapsidae

Sesarma cinereum

Family Ocypodidae

Uca spp.

Ocypode quadrata

TABLE 1  
(Continued)

Family Majidae  
Libinia spp.

Family Squillidae  
Squilla empusa protozoa  
Squilla sp. antizoea

Order Mysidacea

Family Mysidae

Neomysis americana  
Mysidopsis bigelowi  
Metamysidopsis munda  
Heteromysis formosa

Incerti settus

Shrimp 2  
Shrimp 6  
Shrimp 7  
Megalopa A  
Megalopa B  
Megalopa C  
Crustacean 1  
Crustacean 2

Station 3, with peak mean abundance ( $\bar{x}=30/m^3$ ) at the James River station (No. 6). Pagurid (hermit crab) zoeae had the largest mean abundance ( $\bar{x}=192/m^3$ ) of the noncommercial decapod meroplankters. They were reported mainly from subsurface waters along the Bay mouth (Stations 1, 2, and 9) (Figs. A1 and A2), and were dominated by the species Pagurus longicarpus. Its major occurrence extended from June through October, with a peak in August and September. The pea crabs (Pinnotheridae) were represented by larvae of Pinnixa spp. and Pinnotheres spp. (Figs. A3, A4, A5 and A6, respectively). Pinnixa spp., represented by three species, occurred in the subsurface waters of the Bay mouth stations (2, 3 and 9). Their occurrence began as early as May, with peak abundances in September; however, individuals appeared in the plankton in late November or early December. Pinnotheres spp. zoeae exhibited a similar pattern with lower numbers per unit volume. These species were reported most frequently at the inner most stations (4, 5, 6 and 7) over the two years. Peak abundances of the pinnotherids occurred in late July, August and September, and were dominated by P. ostreum.

The fiddler crab (Uca spp.) was observed in both neuston and oblique tows (Figs. A7 and A8). Their period of occurrence extended from June through October; however, a few larvae were found as late as December and February. Peak abundances occurred at the Bay mouth stations (8 and 9), particularly during the second year. They were recorded with modest numbers at the inner-most station (No. 7) and a few offshore at NDS. Their numbers were much higher from oblique tows at the Bay mouth stations;

however, the few at NDS were from the neuston. Uca minor is believed to be the dominant species found. Xanthid (mud) crab zoeae were predominantly observed in the oblique tows from as early as May to as late as December (Figs. A9 and A10). Major peaks occurred in August and September along Thimble Shoal Channel and near the mouth of the James River (Stations 2, 4, 5 and 6). Very few xanthid zoeae were found in the neuston tows. Therefore, it is assumed that this group resides in more saline subsurface waters. Zoeae of Neopanope taxanna sayi were the most prevalent of the five species reported in the lower Bay. Callinassa spp. larvae were mostly observed in oblique tows from June through September (Figs. A11 and A12). Their abundances were greatest at the Bay mouth stations (2, 3 and 10) during 1982. The only major occurrence for both years was from Station 3 by Callinassa sp. A.

Among the shrimp-like groups, the sand shrimp Crangon septemspinosus is the dominant form. Its larvae appeared in early March and peaked in April, May and June during the two years. Stations 1, 2, 3 and 10 exhibited the greatest abundances from oblique tows; however, occurrences were recorded at all stations including NDS (Figs. A13 and A14). Neuston tows showed moderate occurrences at Stations 9 and 10. This pattern was primarily during the first year of the study. Two mysid shrimps were recorded with regularity during the study period. Neomysis americana was the dominant species with peak abundances noted in late summer (August, September and October) (Figs. A15 and A16). It was well represented at most stations during much of the year; however, N. americana was most frequently collected from oblique tows at Stations 5, 6 and 2, with peak concentrations at the

former station ( $\bar{x} > 25/\text{m}^3$ ). Larvae of another mysid shrimp, **Mysidopsis bigelow**, were observed in the fall and early spring (Figs. A17 and A18). It occurred in peak abundances at NDS in both oblique and neuston tows during 1982; however, it was largely restricted to oblique tows from the Bay mouth stations (1, 3, 9 and 10) the subsequent year. Larvae of the holoplankter **Lucifer faxoni** occurred in the study areas in late June with peaks in August and September (1982 - 1983, respectively) at the outer stations (Figs. A19 and A20). Maximum numbers for the two years were recorded from NDS.

Among the fish eggs, engraulid fish eggs clearly were dominant. The eggs began to appear in March and April and increased in abundance in May through July (Figs. A21 and A22). High concentrations were reported from both oblique and neuston tows for the Bay mouth stations during the two years; however, few were reported at NDS. There appeared to be a great deal of variability between years and stations. Neuston tows from Stations 10 and 8 showed peak abundances in 1982 while oblique tows were highest the following year from the southern channels (Station 2:  $\bar{x} = 80/\text{m}^3$ ). Moderate numbers were reported from the inner stations ( $\bar{x} < 30/\text{m}^3$ ). Most of these eggs are believed to be those of the Bay anchovy.

The occurrence of sciaenid eggs matched the seasonal trends of the engraulids; however, their mean abundances were more conservative for both neuston and oblique tows (Figs. A23 and A24). The Bay mouth stations represented the areas of greatest concentrations during July and August; however, eggs were also

collected at the two most distant stations (7 and NDS). Peak mean abundances for the two years occurred at Station 9 ( $\bar{x} > 70/\text{m}^3$ ), with average abundances over the study period much lower ( $\bar{x} < 10/\text{m}^3$ ). Most of the eggs presumably belong to the weakfish.

The number of bothid eggs collected were not enough to make the initial filter. They were collected as early as March, however, their occurrences extended in low numbers through November (Figs. A25 and A26).

The category "other fish eggs" contained all unidentified eggs (Figs. A27 and A28). Their abundances paralleled the seasonal trends described above for engraulid and bothid eggs. Their numbers tended to be higher in 1983 and localized near the Bay mouth stations (4, 8 and 9) from both oblique and neuston tows. It is interesting to note that they were more abundant at the lower Bay mouth and inner stations (4, 5 and 7) the previous year.

A list of the larval fishes collected during the study period is shown in Table 2. Their numbers were low in comparison to the crustaceans counted. Among the flatfishes Scophthalmus aquosus (windowpane) larvae and Etropus microstomus (smallmouth) larvae were most frequent (Figs. A29, A30, A31, and A32, respectively). Scophthalmus aquosus larvae peaked in July at the Bay mouth (Stations 1, 3 and 9) and NDS from subsurface waters. Etropus microstomus larvae exhibited a similar pattern except their abundances were noted the following months (August and September) from Stations 1, 2, 3 and 9. Larvae of the summer flounder Paralichthys dentatus were collected during the fall and winter from subsurface waters (Fig. A33). The hogchoker Trinectes

maculatus was collected mainly during the summer of the second year and from the lower Bay stations (1, 2, 4, 6, 7 and 10) (Fig. A34). Bothus ocellatus larvae were seldom observed in the study area.

Sciaenid fish larvae were observed in trace amounts throughout most of the study period, and predominantly at the lower Bay mouth stations (1, 2, 3 and 8). The weakfish Cynoscion regalis (Fig. A35) occurred in July and August from subsurface waters while the spot Leiostomus xanthurus (Fig. A36) were observed in April. A few larvae of the croaker Micropogonius undulatus (Fig. A37) were collected in September from Stations 1, 3, and 4.

The Bay anchovy Anchoa mitchilli exhibited the greatest abundance during the study. This species is probably responsible for the numerous engraulid eggs observed. Their larvae peaked from June through August in the subsurface waters (Figs. A38 and A39). The Bay mouth stations were best represented; however, occurrences were reported at Station 7 and offshore at NDS. The sand lance larvae, Ammodytes hexapterus, occurred during the winter-spring at Stations 1, 3, 8 and NDS (Figs. A40 and A41). Other larvae such as mullet (Mugil spp.), blue fish (Pomatomus saltatrix) and menhaden (Brevoortia tyrannus) were reported in only trace levels (Figs. A42, A43 and A44, respectively). All three were collected at NDS in the neuston; however, only the menhaden and blue fish were observed inshore: Brevoortia tyrannus at Station 8 in November and Pomatomus saltatrix at Station 2 in August.

TABLE 2

LARVAL FISHES COLLECTED FROM THE LOWER  
CHESAPEAKE BAY AND NORFOLK DISPOSAL SITES  
DURING 1982-1983

	<u>Spawns</u>	<u>Temp. (°C), Salinity, Location</u>
Family Anguillidae - eels <u>Anguilla rostrata</u>	Mid-winter	
Family Ophichthidae Leptocephalus larvae		
Family Clupeidae - herrings <u>Brevoortia tyrannus</u>	Fall & Spring	10-18°C, Coastal
Family Engraulidae - anchovy <u>Anchoa hepsetus</u> <u>Anchoa mitchilli</u>	May - Aug May - Sep	20-25°C, 20 ppt 15-30°C, estuarine
Family Lophiidae - goosefishes <u>Lophius americanus</u>	Apr - Jul	inshore
Family Gadidae - codfishes <u>Urophycis chuss</u> <u>Urophycis regius</u> <u>Enchelyopus cimbrius</u>	Summer Fall - Winter	5-10°C, offshore offshore
Family Ophidiidae - cusk eels <u>Rissola marginata</u>	Summer & Fall	inshore
Family Atherinidae - silversides <u>Menidia</u> spp.	Apr - Aug	14°C+, inshore
Family Syngnathidae - pipefishes and seashores <u>Hippocampus erectus</u> <u>Syngnathus fuscus</u>	May - Sept May - Oct	20°C+, estuarine 15-20°C, estuarine
Family Pomatomidae - bluefish <u>Pomatomus saltatrix</u>	June - Aug	18-26°C, inshore
Family Uranoscopidae - stargazers <u>Astroscopus guttatus</u>	Spring	
Family Mugilidae - mullets <u>Mugil cephalus</u> <u>Mugil eurema</u>	Nov - Feb Spring - Summer	15°C 20°C
Family Gobiidae - gobies <u>Gobiosoma boscii</u>	May - Sep	15°C, shallow



TABLE 2  
(Continued)

	<u>Spawns</u>	<u>Temp. (°C)</u> <u>Salinity, Location</u>
Family Blenniidae - blennies <u>Hypsoblennius hentzi</u>	May - Sep	20°C, estuarine
Family Stromateidae - butterflyfish <u>Peprilus triacanthus</u>	June - Aug	18°C, offshore
Family Triglidae <u>Prionotus carolinus</u>	May - Oct	14-23°C, offshore
Family Cottidae <u>Myoxocephalus</u> <u>octodecemspinosus</u>	Nov - Dec	32 ppt, estuarine
Family Sciaenidae - drums <u>Cynoscion regalis</u> <u>Leiostomus xanthurus</u> <u>Micropogonias undulatus</u> <u>Pogonias cromis</u> <u>Bairdiella chrysura</u>	May - Aug Dec - Mar Oct - Feb May - Jun May - Jul	18-25°C, 15 ppt 15°C, inshore 11°C, offshore 15°C+, 20 ppt 15°C+, 25 ppt
Family Bothidae - left eye flounders <u>Bothus ocellatus</u> <u>Etropus microstomus</u> <u>Paralichthys dentatus</u> <u>Scophthalmus aquosus</u>	May and Nov May - Aug Aug - Feb Apr - Dec	inshore inshore inshore 8-17°C, coastal
Family Pleuronectidae - right eye flounders <u>Glyptocephalus cynoglossus</u>	May - Jul	9-10°C, nearshore
Family Soleidae - soles <u>Trinectes maculatus</u>	May - Sep	20°C, 10-16 ppt
Family Cynoglossidae - tongue fishes <u>Symphurus plagiusu</u>	June - Aug (+)	
Family Gobiessocidae - cling fishes <u>Gobiesox strumosus</u>		
Family Tetraodontidae - puffers <u>Sphoeroides maculatus</u>	May - Sep	nearshore, 12 ppt
Family Ammodytidae - sand lance <u>Ammodytes</u> sp.	Dec - Apr	6-11°C, inshore

Additional plankters were considered "important" groups in the region. Larvaceans occurred in high numbers ( $\bar{x} > 100/\text{m}^3$ ) throughout the Bay mouth stations during the two years (Fig. A45). Greatest abundances were recorded from the tows with the smaller mesh size (153 micron); however, they were well represented in the oblique tows from the larger mesh size as well (Table A2).

Polychaete larvae were reported from all station samples. Spionids represented by Polydora spp. dominated with high abundances ( $\bar{x} > 100/\text{m}^3$ ) at Stations 5, 10, 7, 6 and 8 (Fig. A46). Magelonids were mostly reported at Bay mouth stations (8, 10 and 9) but in far more conservative numbers (Fig. A47). Similar trends were noted for trochophore and nectochaete larvae (Fig. A48). Bivalve larvae had the highest reported mean abundances for all species studied (Fig. A49). Oyster larvae were restricted to the inner stations (Fig. A50) (see Butt *et al.*, 1985 for review). Phoronids exhibited the most conservative abundances ( $\bar{x} < 10/\text{m}^3$ ) (Fig. A51). Greatest abundance values were recorded from tows equipped with the smaller mesh nets (153 micron).

## DISCUSSION

### Larval Recruitment

There is a net seasonal flow of water in most estuaries. Associated with this water mass transport are planktonic forms that may be carried seaward away from parental stocks. In addition, the dynamic circulation patterns of water within an estuary complicates the study of planktonic population dynamics by increasing the potential for broader geographic distributions. Benthic populations with planktonic larvae are particularly susceptible. However, re-invasion mechanisms, either physical or behavioral, serve to return or retain larvae and juveniles to a parental habitat.

The meroplankton of the lower Chesapeake Bay and coastal biotone tend to be dominated by seasonal pulses of a relatively few taxa. Four basic patterns of recruitment of these planktonic larvae to the estuarine/neritic environments are apparent. They are: 1) estuarine forms may be retained in the estuary during their complete life cycle; 2) estuarine forms may be carried seaward by outflow circulation patterns and re-invade at a later cycle; 3) coastal forms may be drawn into the estuary via tidal currents and later migrate to the neritic zone; and 4) coastal forms remain offshore. The estuarine water column of Chesapeake Bay has been described as a stratified two-layered system: low salinity surface waters overlaying a more dense higher saline bottom water mass. These density currents interact with local tidal currents to produce net flow at each depth: outflowing

surface vs. inflowing bottom waters. A species' vertical location in the water masses determines its relative horizontal displacement. It is unlikely that any one reproductive strategy is limited solely to the above patterns. However, retention/re-invasion mechanisms are described for several benthic invertebrate larval forms that combine behavioral adaptations with circulation patterns (Bousfield, 1955; Carriker, 1951; Sandifer, 1975; Scheltema, 1975; Goy, 1976; Sulkin et al., 1980; and others).

Most of the decapod crab species observed during the present study are considered to be "estuarine." Xanthid (mud) crab larvae were "numerically important" components to the plankton in the lower Bay. They occurred in the subsurface water layers allowing them to be retained in the estuary. Those larvae that may be transported beyond the Bay mouth descend to the deeper waters. This processes allows for re-invasion along an inshore gyre or with the inflowing waters of the two-layered flow pattern associated with the Bay (Butt and Alden, 1985). Similar larval distributional patterns were exercised by the Pinnotherid crabs. Pinnotheres spp. and Pinnixa spp. are retained for the most part, in the middle to lower regions of estuaries (Pinschmidt, 1963; Tagatz, 1968; and Sandifer, 1972) or are associated with the mouth of the estuary (Dudley and Judy, 1971). The pinnixid crab larvae were reported most abundant in the Bay mouth, suggesting the presence of local breeding populations associated with the artificial islands of the Bay Bridge-Tunnel. Their numbers dramatically decrease seaward (Sandifer, 1972; Johnson, 1982; Butt and Alden, 1985). The mud shrimp and pagurid crabs show similar ecological trends. Ecological havens for other planktonic larvae

have been noted in the Bay (Manning and Whaley, 1954; Chamberlain, 1962). Restricted circulation traps larvae and accounts for repeated heavy sets of oysters (Manning and Whaley, 1954; Haskin, 1964) and barnacles (Bousfield, 1955).

Chesapeake Bay is of particular interest when one considers its size and the influence it exerts offshore. Short term disruptions to routine flow patterns around the Bay mouth are common. It is reported that strong winds can produce outflow surges resulting in a 10% volume reduction in Chesapeake Bay over 48 hours (Boicourt, 1973). Re-invasion mechanisms have been suggested for certain species of crabs (Callinectes and Uca) where their larvae are routinely transported offshore (Tagatz, 1968; Smyth, 1980; Christy and Stancyk, 1982; McConaugha et al., 1983; Provenzano et al., 1983). Larval development continues during this transport phase. Similar ontogenetic migrations are reported for estuarine species where earliest stage larvae are found in surface layers, with later stages more prevalent near bottom waters (Sandifer, 1975; Goy, 1976). Recent studies tend to support this contention with respect to the fiddler and blue crabs (see Butt et al., 1985; Butt and Alden, 1985; Johnson, 1982; Provenzano et al., 1982; McConaugha et al., 1983). The early stage larvae are transported offshore with the Bay plume, however, re-invasion occurs in the later larval stages through a wind-driven corridor(s) that is only partially understood. Larvae of the blue crab constituted a major component to the meroplankton community at NDS.

The larvae of other major groups of decapods exhibit

distributional patterns rather different from that previously described. Some neritic/coastal or pelagic species may be found in the Bay. Larvae of the rock crab have been classified as a "retained shelf" form that seldom enter the Bay (Sandifer, 1972; Johnson, 1982). Their zoeae are carried inshore by subsurface tidal currents. The megalopae, in turn, migrate to the surface to avoid entrainment into the estuaries (Johnson, 1972; Butt et al., 1985a).

Larvae of the sand shrimp has been reported as the dominant decapod larval form in previous studies of Chesapeake Bay (Sandifer, 1972; Goy, 1976). Apparently, its larvae are from an indigenous population found in the region. Mysid shrimps are epibenthic forms similar to the sand shrimp. They too play an important role in the food chain of inshore waters. **Mysidopsis bigelowi** tended to be found at NDS throughout the water column; however, it dominated the neuston tows at that station. Its occurrence inshore was restricted to subsurface waters from the Bay mouth. The distribution pattern of the estuarine mysid **Neomysis americana** was clearly indicative of a nearshore/estuarine source. In this study, this species was found in bottom waters from the lower Bay; however, it is reported to frequent the surface waters during the evening hours (Hopkins, 1965).

It is often difficult to fully appreciate abundance estimates reported for plankton from widely divergent groups that occupy different social structures in the plankton community. The numbers of fishes larvae collected during this study were not sufficient to be considered "numerically important." However, their numerical abundances are not expected to match or be

comparable to abundance estimates for the crustaceans described above.

The Bay Anchovy appears to dominate among the fishes in the study area. Their eggs (engraulid fish eggs) are believed to dominate the egg counts during the summer months. Anchoa mitchilli is classified as an inshore form (Fahay, 1975). Fahay (1975) noted that many species of bothids and sciaenids spawn offshore and the larvae migrate inshore during development. The few larvae that were collected during this study were predominantly located at the lower Bay mouth stations.

Aside from the Bay anchovy, the largest numbers of important fish larvae collected belonged to the flatfishes. Among these the windowpane and smallmouth flounders were most frequent. They spawn along inshore waters during the summer months except larvae of the smallmouth flounder were found a little later in the season (September). The summer flounder exhibited a winter spawning.

## SUMMARY AND CONCLUSION

Many of the estuarine species maintain reproductive strategies that allow their larval forms to be retained within the vicinity of parent populations. Larvae of these forms select the subsurface waters preventing their expulsion from the estuary. Other species routinely are carried offshore in the surface waters. Notable among the crustaceans are the blue crabs that undergo ontogenetic development offshore and re-invade the estuary as juveniles. A number of offshore spawners were found primarily seaward of the Bay mouth (e.g. Cancer irroratus larvae, and Mysidopsis bigelowi); however, they visit the inshore zone via subsurface currents. The only taxonomic groups of meroplankton that appear to apparently move through the study area in ecologically significant numbers are the blue crab larvae, the Bay anchovy larvae, bivalve veligers, polychaete larvae, larvaceans and the sand shrimp larvae.



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## APPENDICES

## LIST OF FIGURES

FIGURE		PAGE
A1 to A51	Abundance (#/m <sup>3</sup> ) of important meroplankton groups by date. The numbers indicate the mean values of four replicates for the tow type (tow type 1 = 153 $\mu$ oblique; tow type 2 = 353 $\mu$ neuston; tow type 3 = 353 $\mu$ oblique) at the station. The station locations are outlined in Fig. 1 of the text. Most of the figures are log <sub>10</sub> scale except for a few fish species .....	39

## LIST OF TABLES

TABLE		PAGE
A1	Summary statistics for each station/tow type combination. Tow type 1 = 153 micron oblique tows. Tow type 2 = the neuston tows, while tow type 3 = the oblique tows, both are 353 microns. The "MNMNABUN" column are the grand means of the species occurrences from the individual cruise means (n=4) for the station/tow type, while "SEMABUN" are the standard errors of these values. The "MXMABUN" are the maximum cruise means observed for the station/tow type. The "POCCUR" column is the percent occurrence of the groups for the station/tow type. The "PCOVER" values represent the percent occurrence of the groups over an abundance level of 10/m <sup>3</sup> for the station/tow type .....	91
A2	The taxonomic groups that met the abundance/occurrence criteria of 10/m <sup>3</sup> in at least 5% of all observations and the station/tow types for which they met the criteria. The "MNMABUND" column has the same meaning as in Table A1. Tow type 1 = 153 $\mu$ oblique; tow type 2 = 353 $\mu$ neuston; and tow type 3 = 353 $\mu$ oblique .....	126



# **LIST OF TABLES** (Continued)

TABLE		PAGE
A3	The abundance data for important meroplankton groups of the study area. The values are the means of four replicates, while the values in parentheses are the standard errors. The order of presentation is the same as that in the text: decapod crustaceans, fish eggs and larvae (flatfish, sciaenids and others) and other invertebrate larvae (bivalves, polychaetes, larvaceans and phoronids). Station, tow types and corresponding mesh sizes (153 and 353 micron) are noted .....	134

Figs. A1  
to A51

Abundance ( $\#/m^3$ ) of important mero-plankton groups by date. The numbers indicate the mean values of four replicates for tow type (tow type 1 =  $153\mu$  oblique; tow type 2 =  $353\mu$  neuston; tow type 3 =  $353\mu$  oblique) at the station. The station locations are outlined in Figure 1 of the text. Most of the figures are  $\log_{10}$  scale except for a few fish species.

Figure A1.

SAS  
TOM TYPE=2

160000.00 \*

10000.00 \*

1000.00 \*

100.00 \*

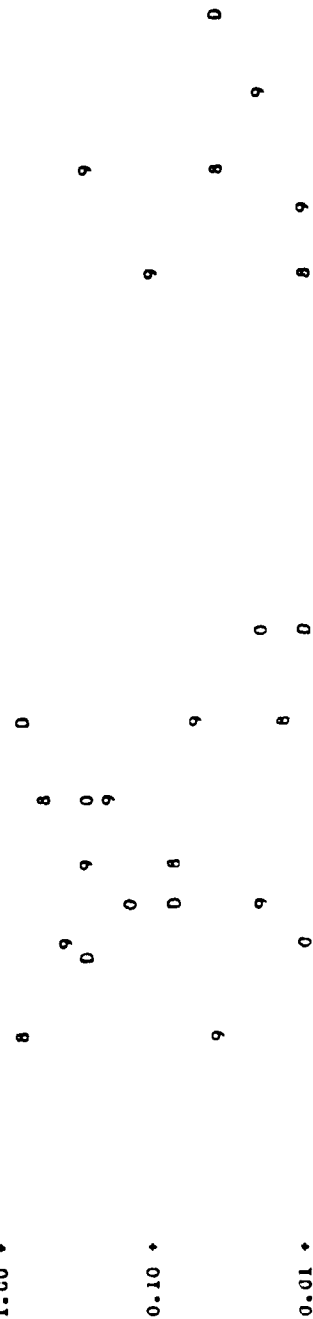
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1.00 \*

0.10 \*

0.01 \*

P  
a  
g  
u  
e  
i  
d  
C  
r  
a  
b  
s



SAMPLING DATE

NOTE: 14 OBS HAD MISSING VALUES OR WERE OUT OF RANGE

Figure A2.

SAS  
TGM TYPE=J

100000.00 +

10000.00 +

1000.00 +

100.00 +

10.00 +

1.00 +

0.10 +

0.01 +

P  
a  
g  
e  
r  
e  
d  
C  
r  
a  
p  
s

SAMPLING DATE

NOTE: 58 OBS HAD MISSING VALUES OR WERE OUT OF RANGE. 17 OBS HIDDEN

06MAR82 25APR82 14JUN82 03AUG82 22SEP82 11NOV82 31DEC82 19FEB83 10APR83 30MAY83 19JUL83 07SEP83 27OCT83 16JEC83 04FEB84

Figure A3.

SAS  
TOW TYPE=2

100000.00 \*

10000.00 \*

1000.00 \*

100.00 \*

10.00 \*

1.00 \*

0.10 \*

0.01 \*

P  
I  
C  
C  
X  
S  
P  
P  
P

9  
8

9 0 8

9  
8

0

0

0

8  
D

9

8

8

06MAR82 25APR82 14JUN82 03AUG82 22SEPR82 11NOV82 31DEC82 19FEB83 10APR83 30MAY83 07SEP83 27OCT83 16DEC83 04FEB84

SAMPLING DATE

NOTE: 40 OBS HAD MISSING VALUES OR WERE OUT OF RANGE 1 OBS HIDDEN

Figure A4.

SAS  
TOM TYPE=3

1000000.00 +

100000.00 +

10000.00 +

1000.00 +

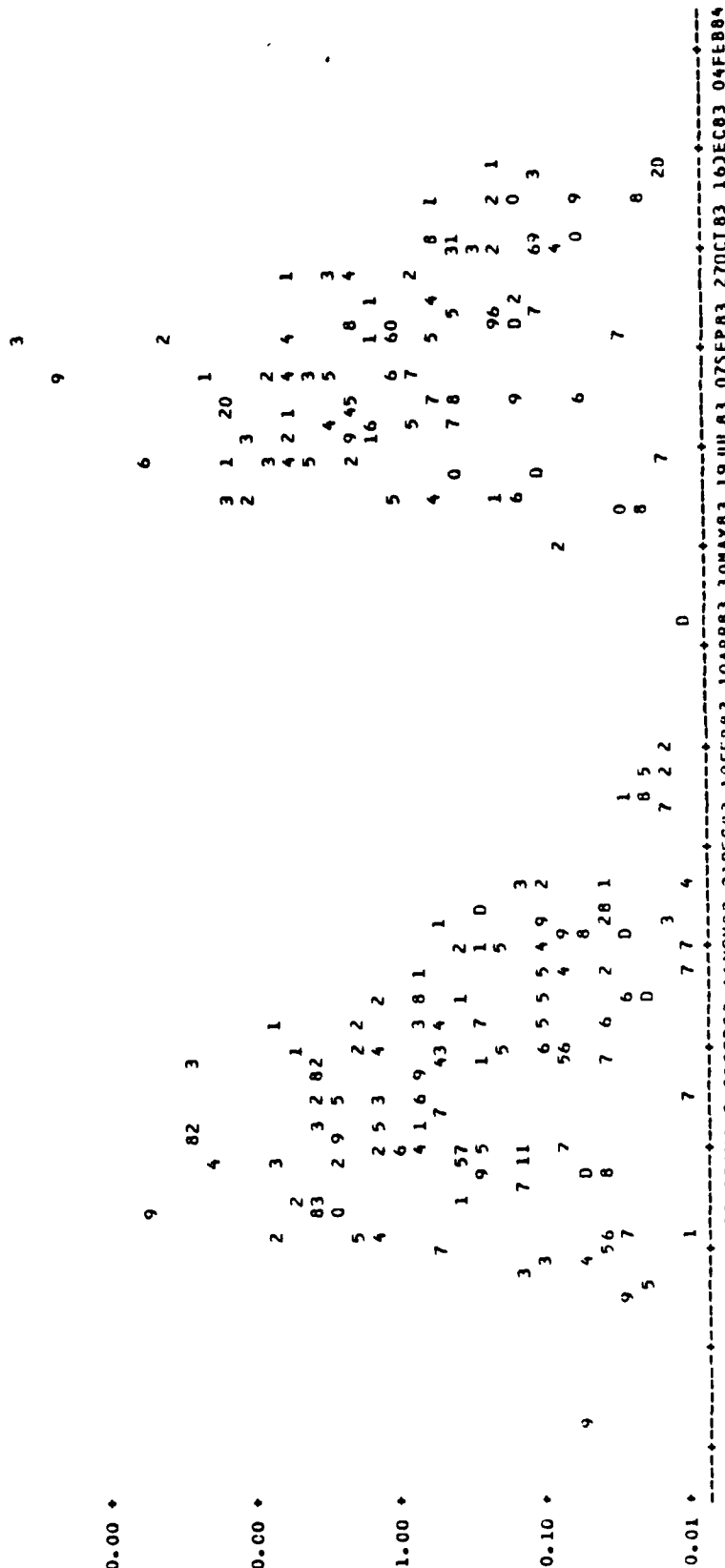
100.00 +

10.00 +

0.10 +

0.01 +

P  
i  
n  
n  
i  
x  
a  
s  
p  
p  
p  
.



SAMPLING DATE

NOTE: 80 OBS HAD MISSING VALUES OR WERE OUT OF RANGE 18 OBS HIDDEN

Figure A5.

SAS  
TON TYPE=2

160000.00 \*

10000.00 \*

1000.00 \*

100.00 \*

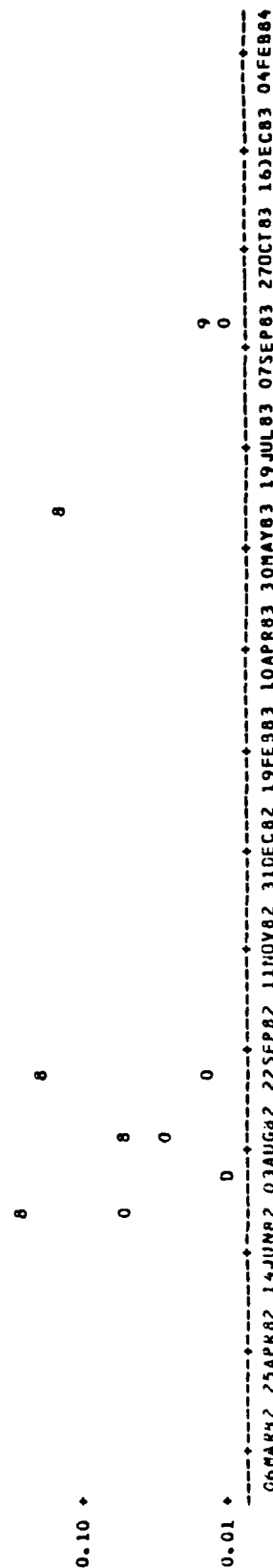
10.00 \*

1.00 \*

0.10 \*

0.01 \*

P i n n o l e e r e s s p p



SAMPLING DATE

NOTE: 47 OBS HAD MISSING VALUES OR WERE OUT OF RANGE 1 OBS HIDDEN

SAS  
TCW TYPE=3

0.01 +

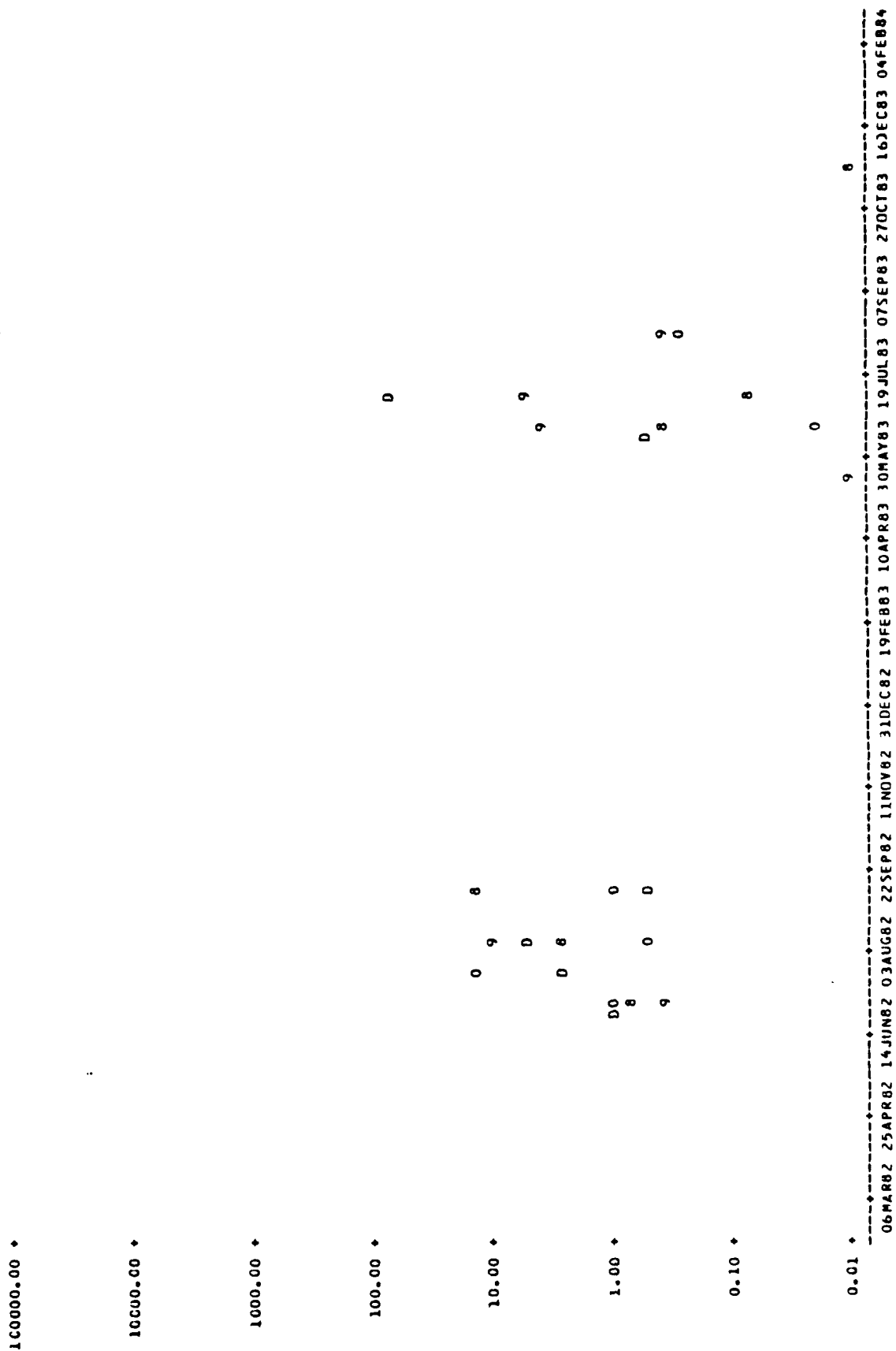
45

31463 31174445

NOTE: 140 OBS HAD MISSING VALUES OR WERE OUT OF RANGE 20 OBS HIDDEN



Figure A7.  
SAS  
TOM TYPE=2



SAMPLING DATE

2 OBS HIUDEN

33 OBS HAD MISSING VALUES OR WERE OUT OF RANGE

NOTE:

SAS  
TCW TYPE=3

Q.C1 ♦

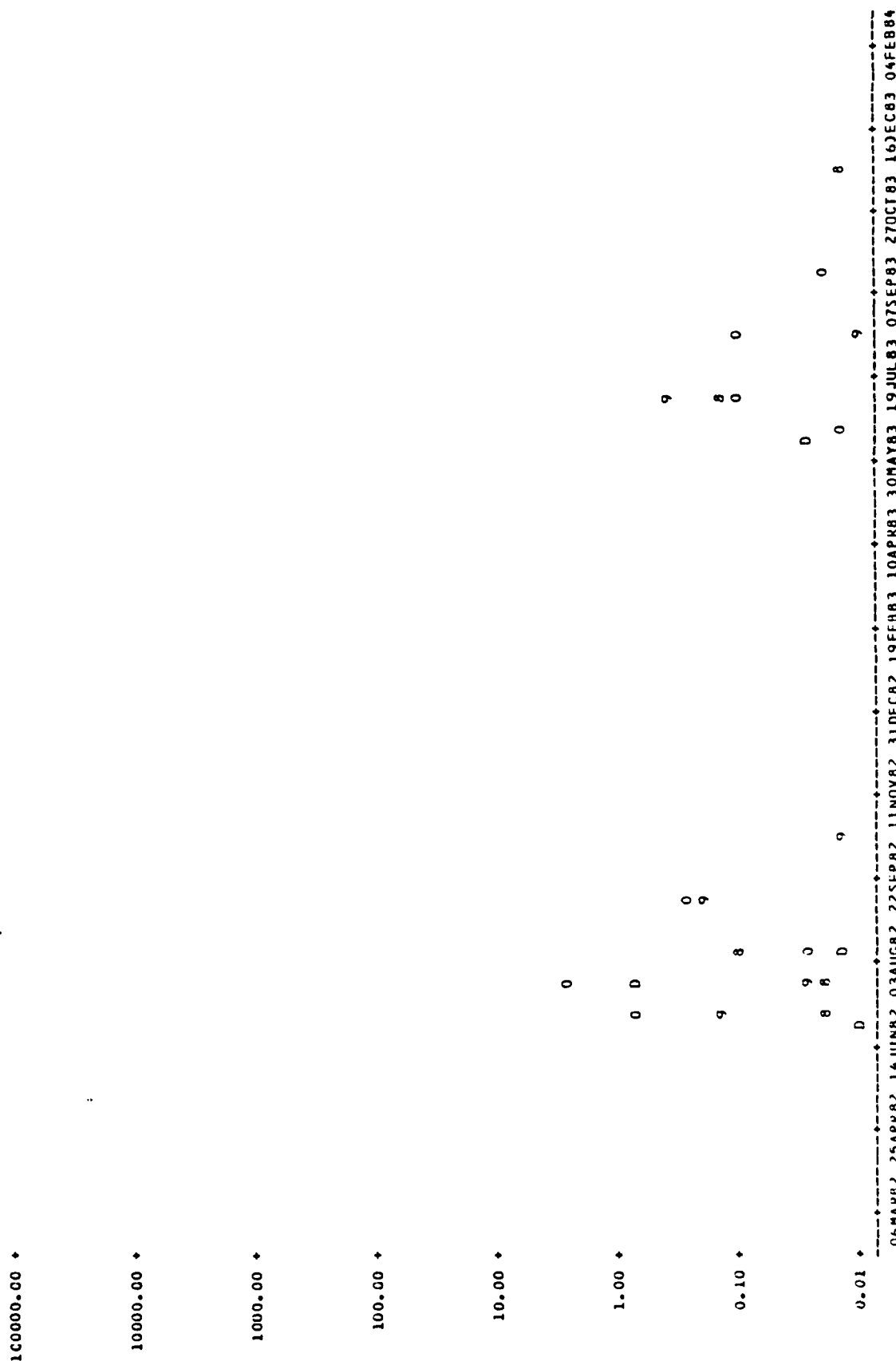
—47

126 OBS HAD MISSING VALUES OR WERE OUT OF RANGE

### SAMPLE 1 IN DATE

14 JUN 63 1400Z 2200Z 2300Z 2400Z 2500Z 2600Z 2700Z 2800Z 2900Z 3000Z 3100Z 3200Z 3300Z 3400Z 3500Z 3600Z 3700Z 3800Z 3900Z 4000Z 4100Z 4200Z 4300Z 4400Z 4500Z 4600Z 4700Z 4800Z 4900Z 5000Z 5100Z 5200Z 5300Z 5400Z 5500Z 5600Z 5700Z 5800Z 5900Z 6000Z 6100Z 6200Z 6300Z 6400Z 6500Z 6600Z 6700Z 6800Z 6900Z 7000Z 7100Z 7200Z 7300Z 7400Z 7500Z 7600Z 7700Z 7800Z 7900Z 8000Z 8100Z 8200Z 8300Z 8400Z 8500Z 8600Z 8700Z 8800Z 8900Z 9000Z 9100Z 9200Z 9300Z 9400Z 9500Z 9600Z 9700Z 9800Z 9900Z 10000Z 10100Z 10200Z 10300Z 10400Z 10500Z 10600Z 10700Z 10800Z 10900Z 11000Z 11100Z 11200Z 11300Z 11400Z 11500Z 11600Z 11700Z 11800Z 11900Z 12000Z 12100Z 12200Z 12300Z 12400Z 12500Z 12600Z 12700Z 12800Z 12900Z 13000Z 13100Z 13200Z 13300Z 13400Z 13500Z 13600Z 13700Z 13800Z 13900Z 14000Z 14100Z 14200Z 14300Z 14400Z 14500Z 14600Z 14700Z 14800Z 14900Z 15000Z 15100Z 15200Z 15300Z 15400Z 15500Z 15600Z 15700Z 15800Z 15900Z 16000Z 16100Z 16200Z 16300Z 16400Z 16500Z 16600Z 16700Z 16800Z 16900Z 17000Z 17100Z 17200Z 17300Z 17400Z 17500Z 17600Z 17700Z 17800Z 17900Z 18000Z 18100Z 18200Z 18300Z 18400Z 18500Z 18600Z 18700Z 18800Z 18900Z 19000Z 19100Z 19200Z 19300Z 19400Z 19500Z 19600Z 19700Z 19800Z 19900Z 20000Z 20100Z 20200Z 20300Z 20400Z 20500Z 20600Z 20700Z 20800Z 20900Z 21000Z 21100Z 21200Z 21300Z 21400Z 21500Z 21600Z 21700Z 21800Z 21900Z 22000Z 22100Z 22200Z 22300Z 22400Z 22500Z 22600Z 22700Z 22800Z 22900Z 23000Z 23100Z 23200Z 23300Z 23400Z 23500Z 23600Z 23700Z 23800Z 23900Z 24000Z 24100Z 24200Z 24300Z 24400Z 24500Z 24600Z 24700Z 24800Z 24900Z 25000Z 25100Z 25200Z 25300Z 25400Z 25500Z 25600Z 25700Z 25800Z 25900Z 26000Z 26100Z 26200Z 26300Z 26400Z 26500Z 26600Z 26700Z 26800Z 26900Z 27000Z 27100Z 27200Z 27300Z 27400Z 27500Z 27600Z 27700Z 27800Z 27900Z 28000Z 28100Z 28200Z 28300Z 28400Z 28500Z 28600Z 28700Z 28800Z 28900Z 29000Z 29100Z 29200Z 29300Z 29400Z 29500Z 29600Z 29700Z 29800Z 29900Z 30000Z 30100Z 30200Z 30300Z 30400Z 30500Z 30600Z 30700Z 30800Z 30900Z 31000Z 31100Z 31200Z 31300Z 31400Z 31500Z 31600Z 31700Z 31800Z 31900Z 32000Z 32100Z 32200Z 32300Z 32400Z 32500Z 32600Z 32700Z 32800Z 32900Z 33000Z 33100Z 33200Z 33300Z 33400Z 33500Z 33600Z 33700Z 33800Z 33900Z 34000Z 34100Z 34200Z 34300Z 34400Z 34500Z 34600Z 34700Z 34800Z 34900Z 35000Z 35100Z 35200Z 35300Z 35400Z 35500Z 35600Z 35700Z 35800Z 35900Z 36000Z 36100Z 36200Z 36300Z 36400Z 36500Z 36600Z 36700Z 36800Z 36900Z 37000Z 37100Z 37200Z 37300Z 37400Z 37500Z 37600Z 37700Z 37800Z 37900Z 38000Z 38100Z 38200Z 38300Z 38400Z 38500Z 38600Z 38700Z 38800Z 38900Z 39000Z 39100Z 39200Z 39300Z 39400Z 39500Z 39600Z 39700Z 39800Z 39900Z 40000Z 40100Z 40200Z 40300Z 40400Z 40500Z 40600Z 40700Z 40800Z 40900Z 41000Z 41100Z 41200Z 41300Z 41400Z 41500Z 41600Z 41700Z 41800Z 41900Z 42000Z 42100Z 42200Z 42300Z 42400Z 42500Z 42600Z 42700Z 42800Z 42900Z 43000Z 43100Z 43200Z 43300Z 43400Z 43500Z 43600Z 43700Z 43800Z 43900Z 44000Z 44100Z 44200Z 44300Z 44400Z 44500Z 44600Z 44700Z 44800Z 44900Z 45000Z 45100Z 45200Z 45300Z 45400Z 45500Z 45600Z 45700Z 45800Z 45900Z 46000Z 46100Z 46200Z 46300Z 46400Z 46500Z 46600Z 46700Z 46800Z 46900Z 47000Z 47100Z 47200Z 47300Z 47400Z 47500Z 47600Z 47700Z 47800Z 47900Z 48000Z 48100Z 48200Z 48300Z 48400Z 48500Z 48600Z 48700Z 48800Z 48900Z 49000Z 49100Z 49200Z 49300Z 49400Z 49500Z 49600Z 49700Z 49800Z 49900Z 50000Z 50100Z 50200Z 50300Z 50400Z 50500Z 50600Z 50700Z 50800Z 50900Z 51000Z 51100Z 51200Z 51300Z 51400Z 51500Z 51600Z 51700Z 51800Z 51900Z 52000Z 52100Z 52200Z 52300Z 52400Z 52500Z 52600Z 52700Z 52800Z 52900Z 53000Z 53100Z 53200Z 53300Z 53400Z 53500Z 53600Z 53700Z 53800Z 53900Z 54000Z 54100Z 54200Z 54300Z 54400Z 54500Z 54600Z 54700Z 54800Z 54900Z 55000Z 55100Z 55200Z 55300Z 55400Z 55500Z 55600Z 55700Z 55800Z 55900Z 56000Z 56100Z 56200Z 56300Z 56400Z 56500Z 56600Z 56700Z 56800Z 56900Z 57000Z 57100Z 57200Z 57300Z 57400Z 57500Z 57600Z 57700Z 57800Z 57900Z 58000Z 58100Z 58200Z 58300Z 58400Z 58500Z 58600Z 58700Z 58800Z 58900Z 59000Z 59100Z 59200Z 59300Z 59400Z 59500Z 59600Z 59700Z 59800Z 59900Z 60000Z 60100Z 60200Z 60300Z 60400Z 60500Z 60600Z 60700Z 60800Z 60900Z 61000Z 61100Z 61200Z 61300Z 61400Z 61500Z 6

Figure A9.  
SAS  
TOW TYPE=2



SAMPLING DATE

NOTE: 36 OBS HAD MISSING VALUES OR WERE OUT OF RANGE

Figure A10.

SAS  
TOW TYPE=3

[illegible]

Figure A11.

SAS  
TOW TYPE=2

10000.00 \*

1000.00 \*

100.00 \*

10.00 \*

1.00 \*

0.10 \*

0.01 \*

C a t i f i c a t i o n s s p p .

0

8

0 9 0 9

9 9 0

8

9

8

9

8 0

06MAR82 25APR82 14JUN82 03AUG82 22SEP82 11NOV82 31DEC82 19FEB83 10APR83 30MAY83 19JUL83 07SEP83 27OCT83 16JEC83 04FEB84

SAMPLING DATE

NOTE: 71 OBS HAD MISSING VALUES OR WERE OUT OF RANGE 1 OBS HIDDEN

Figure A12.

SAS  
TOM TYPE=3

100000.00 \*

10000.00 \*

1000.00 \*

100.00 \*

10.00 \*

1.00 \*

0.10 \*

0.01 \*

C  
a  
i  
i  
i  
i  
a  
s  
s  
s  
a  
s  
p  
p  
p  
.

2 3 3 8  
4  
0 2 81  
9 9 9 3  
2 2 1  
3 4 5 2  
2 6 4 2  
3 1 1 47  
5 4 1 6 1 2 1  
3 6 4 1 5 2  
4 8 6 2  
705 3 4  
4 8 2 5  
3 3  
1 7 7 54 9 1  
7 D

1 9 1 9 3  
2  
2 2 2  
0 1 5  
4 4  
6 8 3  
5 2  
8 4 40  
6 9 5 D  
1  
3 5 6 8  
6 2

15JAN82 06MAR82 25APR82 14JUN82 03AUG82 22SEP82 11NOV82 31DEC82 19FEB83 10APR83 30MAY83 19JUL83 07SEP83 27OCT83 16DEC83

SAMPLING DATE

Figure A13.

SAS  
TOW TYPE=2

100000.00 +

10000.00 +

C 1000.00 +

100.00 +

10.00 +

1.00 +

0.10 +

0.01 +

C  
F  
A  
N  
O  
N  
S  
E  
P  
L  
C  
M  
S  
P  
A  
N  
O  
S  
A

06FEB82 25APR82 14JUN82 03AUG82 22SEP82 11NOV82 31DEC82 19FEB83 10APR83 30MAY83 19JUL83 07SEP83 27OCT83 16DEC83 04FEB84

SAMPLING DATE

NOTE: 32 OBS HAD MISSING VALUES OR WERE OUT OF RANGE 2 OBS HIDDEN

SAS  
TOW TYPE=3

10000.00 ♦

1000.00 \*

100.00 +

10.00 •

1.00 ♦

Q-10 ♦

0-01 • ♦

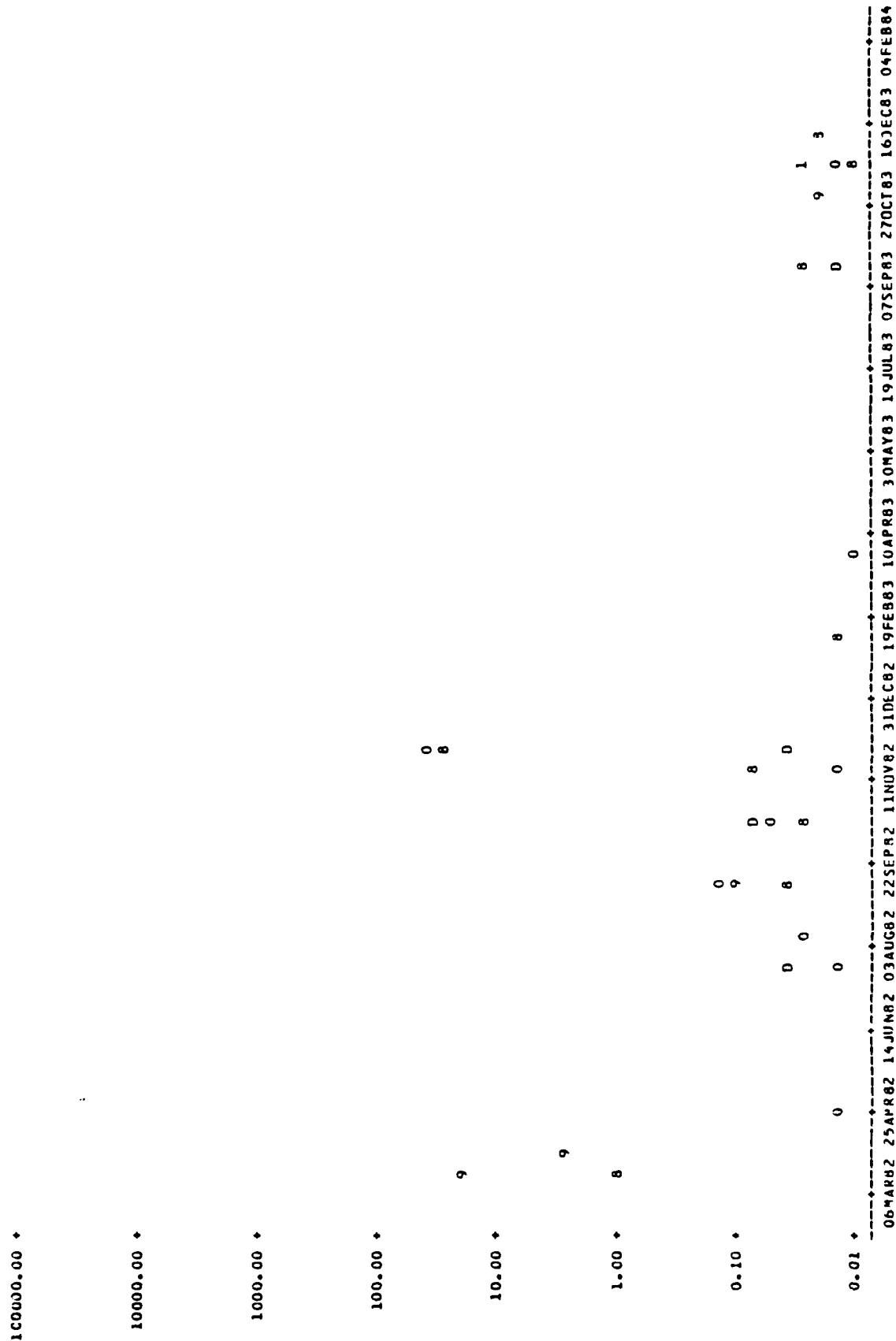
**SAMPLING DATE**

NOTE: 39 OBS HAD MISSING VALUES OR WERE OUT OF RANGE 38 OBS HIDDEN

15JAN82 25APR82 14JUN82 03AUG82 22SEP82 11NOV82 31DEC82 19FEB83 10APR83 30MAY83 19JUL83 07SEP83 27OCT83 16DEC83



SAS  
TOW TYPE=2



**SAMPLING DATE**

NOTE: 56 OBS HAD MISSING VALUES OR WERE OUT OF RANGE 4 OBS HIDDEN

Figure A16.

SAS  
TOM TYPE=J

100000.00 \*

10000.00 \*

1000.00 \*

100.00 \*

10.00 \*

1.00 \*

0.10 \*

0.01 \*

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

SAMPLING DATE

NOTE: 84 OBS HAD MISSING VALUES OR WERE CUT OF RANGE 21 OBS HIDDEN

15JAN82 06MAR82 25APR82 14JUN82 03AUG82 22SEP82 11NOV82 31DEC82 19FEB83 10APR83 30MAY83 19JUL83 07SEP83 27OCT83 16DEC83

Figure A17.

SAS  
TOW TYPE=2

100000.00 +

10000.00 +

1000.00 +

100.00 +

10.00 +

1.00 +

0.10 +

0.01 +

M  
Y  
S  
I  
D  
U  
P  
S  
I  
S  
D  
I  
G  
E  
I  
O  
M  
I

SAMPLING DATE

NOTE: 77 OBS HAD MISSING VALUES OR WERE OUT OF RANGE 1 OBS HIDDEN

06MAR82 25APR82 14JUN82 03AUG82 22SEP82 11NOV82 31DEC82 19FEB83 10APR83 30MAY83 19JUL83 07SEP83 27OCT83 16JEC83 04FEB84

0.91 •

57

NOTE: 229 OBS HAD MISSING VALUES OR WERE OUT OF RANGE

Figure A19.  
SAS  
TOW TYPE=2

100000.00 +

10000.00 +

1000.00 +

100.00 +

10.00 +

1.00 +

0.10 +

0.01 +

.....

D D

0 8

9

8

0 9

3

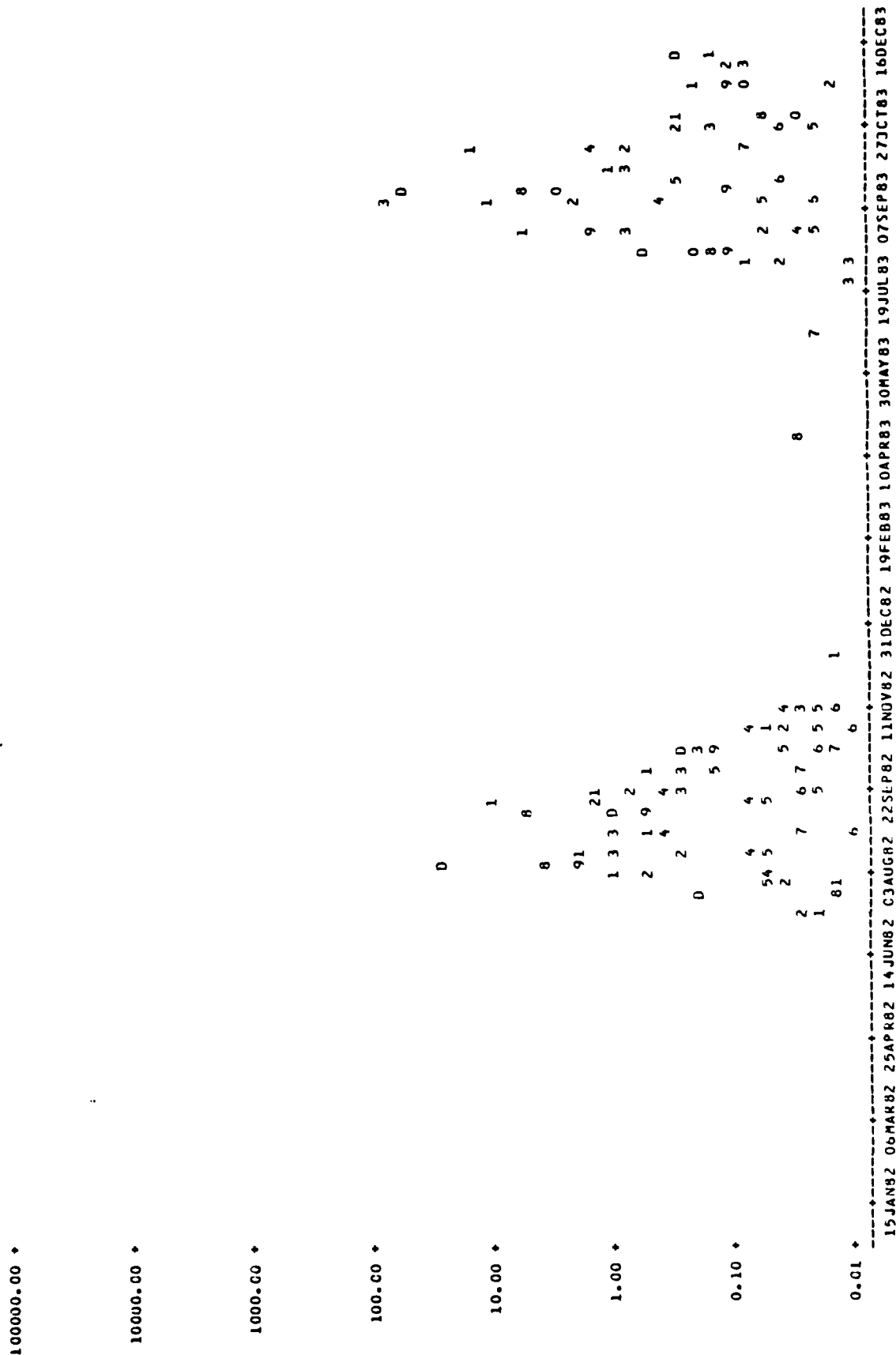
06MAR82 25APR82 14JUN82 03AUG82 22SEP82 11NOV82 31DEC82 19FEB83 10APR83 30MAY83 19JUL83 07SEP83 27OCT83 16JEC83 04FEB84

SAMPLING DATE

1 OBS HIDDEN

NOTE: 67 OBS HAD MISSING VALUES OR WERE OUT OF RANGE

Figure A20.  
SAS  
TOW TYPE=3



SAMPLING DATE

NOTE: 234 OBS HAD MISSING VALUES OR WERE OUT OF RANGE 23 OBS HIDDEN

Figure A21.

SAS  
TOW TYPE=2

100000.00 \*

10000.00 \*

1000.00 \*

100.00 \*

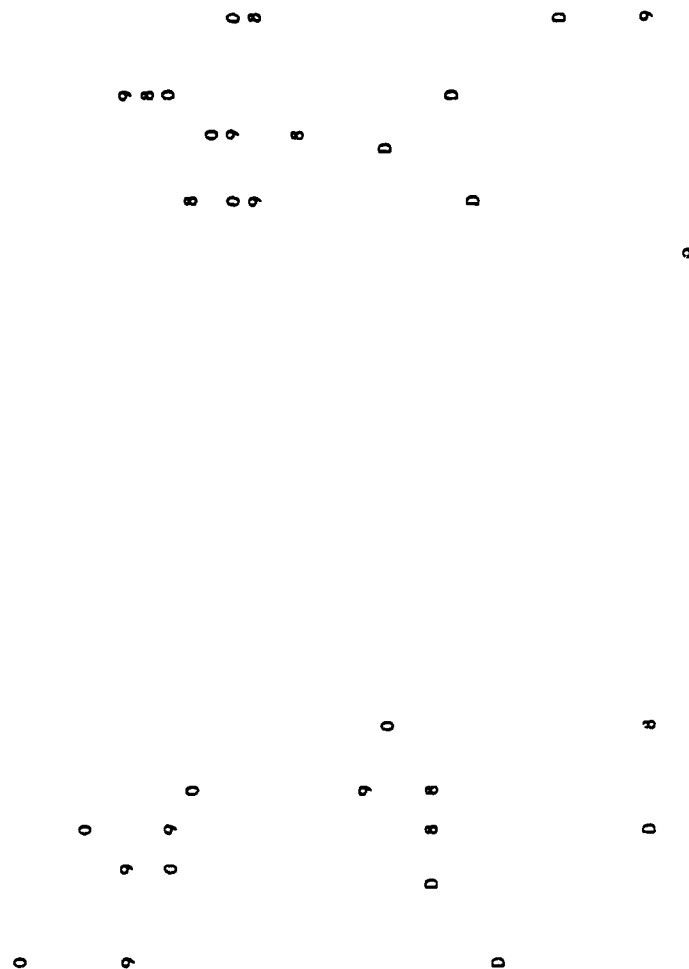
10.00 \*

1.00 \*

0.10 \*

0.01 \*

E n g r a u l i l a s e e s s



06MAR82 25APR82 14JUN82 03AUG82 22SEP82 11NOV82 31DEC82 19FEB83 10APR83 30MAY83 19JUL83 07SEP83 27OCT83 16JEC83 04FEB84

SAMPLING DATE

NOTE: 44 OBS HAD MISSING VALUES OR WERE OUT OF RANGE 2 OBS HIDDEN







Figure A24.

SAS  
TOW TYPE=3

100000.00 \*

10000.00 \*

1000.00 \*

S  
C  
I  
E  
N  
I  
D  
A  
E  
S  
9  
9  
9  
S

100.00 \*

10.00 \*

1.00 \*

0.10 \*

0.01 \*

9

1

1  
2

3

3

0

5

0

3

0

1

0

8

9

1

2

3

4

5

6

7

8

9

0

1

2

3

4

5

6

7

8

9

0

1

2

3

4

5

6

7

8

9

0

1

2

3

4

5

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0

1

2

3

4

5

6

7

8

9

0

1

2

3

4

5

6

7

8

**Figure A25.**

SAS  
YOW TYPE=2



C6MAR82 25APR82 14JUN82 03AUG82 22SEP82 11NOV82 31DEC82 19FEB83 10APR83 30MAY83 19JUL83 07SEP83 27OCT83 16JEC83 04FEB84

**SAMPLING DATE**

NOTE: 56 OBS HAD MISSING VALUES OR WERE OUT OF RANGE 1 OBS HIDDEN

Figure A26.

SAS  
TON TYPE=3

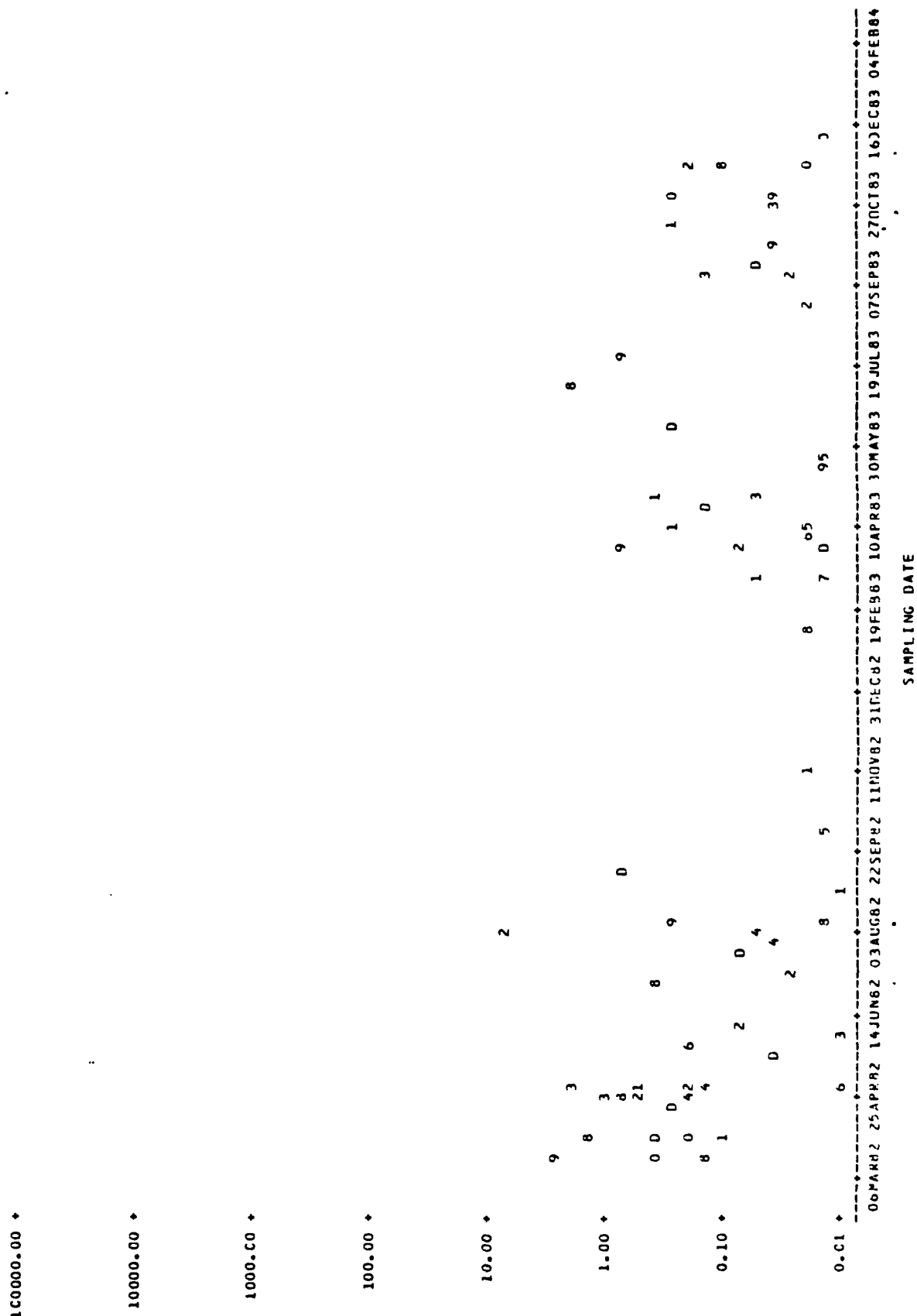


Figure A27.  
SAS  
TOW TYPE=2

100000.00 +

10000.00 +

1000.00 +

100.00 +

10.00 +

1.00 +

0.10 +

0.01 +

U  
C  
h  
e  
r  
F  
I  
S  
h  
e  
y  
s

9

8

0  
8

0

9

8

0

8

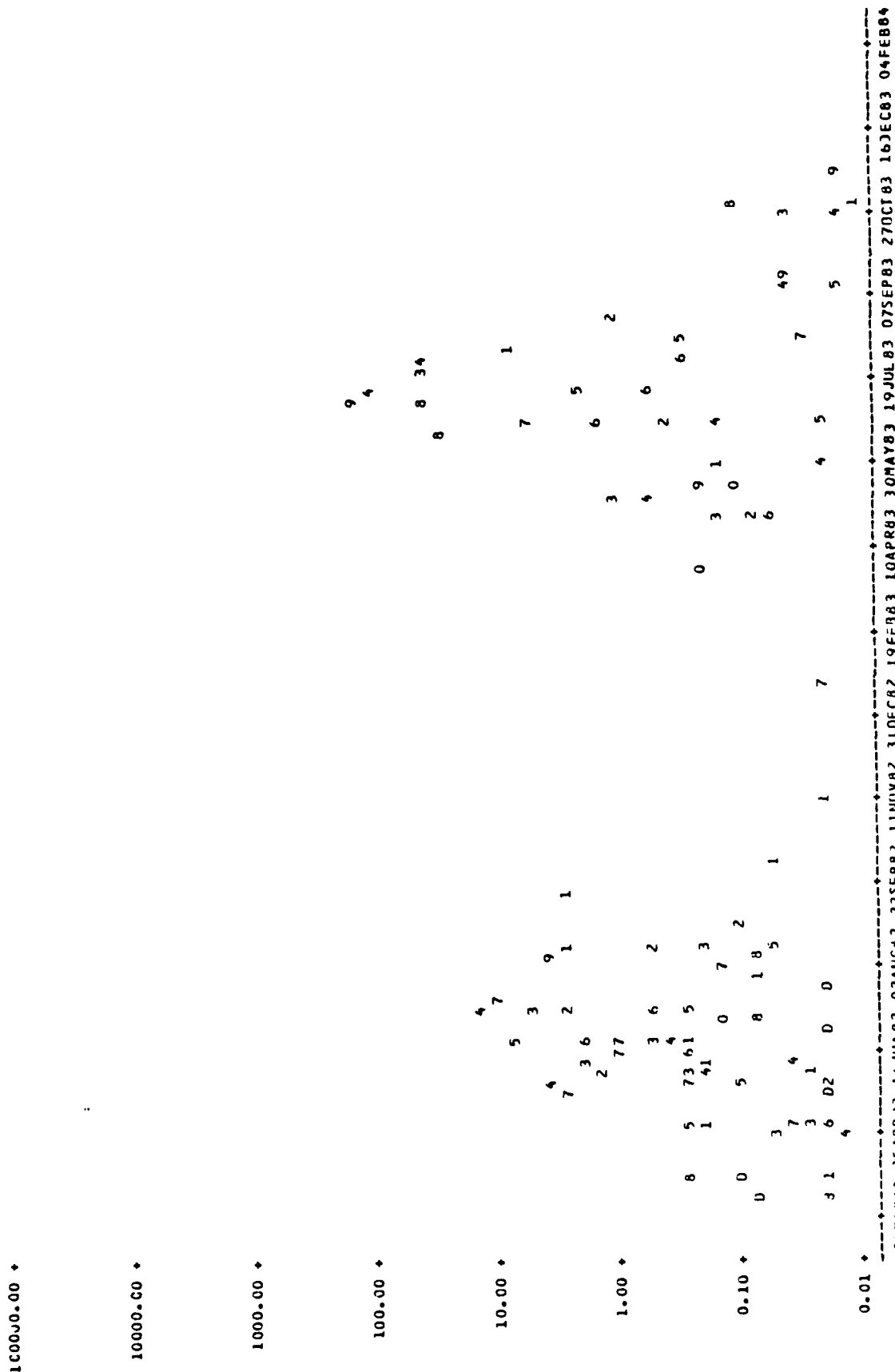
0

06MAR82 25APR82 14JUN82 03AUG82 22SEP82 11NOV82 31DEC82 19FEB83 10APR83 30MAY83 19JUL83 07SEP83 27OCT83 16DEC83 04FEB84

SAMPLING DATE

NOTE: 62 OBS HAD MISSING VALUES OR WERE OUT OF RANGE 2 OBS HIDE^4

Figure A28.  
SAS  
TOM TYPE=3



NOTE: 103 OBS HAD MISSING VALUES OR WERE OUT OF RANGE 5 OBS HIDDEN

Figure A29.  
TOM TYPE=2

100000.00 +  
10000.00 +  
1000.00 +  
100.00 +  
10.00 +  
1.00 +  
0.10 +  
0.01 +

S C O P H T N 4 I E U S 4 Q U O S U S

D

0

9

14JUN82 24JUL82 02SEP82 12OCT82 21NOV82 31DEC82 09FEB83 21MAR83 30APR83 09JUN83 19JUL83 28AUG83

SAMPLING DATE





Figure A31.  
TOW TYPE=2

100000.00 +

10000.00 +

1000.00 +

100.00 +

10.00 +

1.00 +

0.10 +

0.01 +

E L F O D U S M J C L O S E O E U S

8

D

D

D

14JUN82 24JUL82 02SEP82 12OCT82 21NOV82 31DEC82 09FEB83 21MAR83 30APR83 09JUN83 17JUL83 28AUG83

SAMPLING DATE



Figure A33.  
TOW TYPE=3

1.0 +

0.9 +

0.8 +

0.7 +

0.6 +

0.5 +

0.4 +

0.3 +

0.2 +

0.1 +

0.0 +

3

9

D

8 4  
28

1 0

1 07

1 01 10

001 D1

141D 1

1 107

101

3 0

01 01

01 01

01 01

01 01

01 01

01 01

01 01

01 01

01 01

01 01

01 01

26NOV81 15JAN82 06MAR82 25APR82 14JUN82 03AUG82 22SEP82 11NOV82 31DEC82 19FEB83 30MAY83 19JUL83 07SEP83 27OCT83 16DEC83

SAMPLING DATE

NOTE: 54 OBS HIDDEN

Figure A34.  
TOW TYPE=3

100000.00 \*

10000.00 \*

1000.00 \*

100.00 \*

10.00 \*

1.00 \*

0.10 \*

0.01 \*

T O W T Y P E = 3

7  
2  
1  
4  
2  
7  
0  
6  
7

1

15 JAN 82 06 MAR 82 25 APR 82 14 JUN 82 03 AUG 82 22 SEP 82 11 NOV 82 31 DEC 82 19 FEB 83 10 APR 83 30 MAY 83 19 JUL 83 07 SEP 83 27 OCT 83 16 DEC 83

SAMPLING DATE

Figure A35.

SAS  
TOW TYPE=3

14:14 FRIDAY, MARCH 22, 1985 105

100000.00 +

10000.00 +

1000.00 +

100.00 +

10.00 +

1.00 +

0.10 +

0.01 +

C y n o s c i o n f e g a i i s

3

3

28

21 1

1

4 1

26NOV81 15JAN82 06MAR82 25APR82 14JUN82 03AUG82 22SEP82 11NOV82 31DEC82 19FEB83 10APR83 30MAY83 19JUL83 07SEP83 27OCT83

SAMPLING DATE

NOTE: 16 OBS HAD MISSING VALUES OR WERE OUT OF RANGE 1 OBS HIDDEN



Figure A37.

TOW TYPE=3



C.00	D	2 1	6 1	12 83	1	1	6	4	1	3		
15 JAN 82	06 MAR 82	25 APR 82	14 JUN 82	03 AUG 82	22 SEP 82	11 NOV 82	31 DEC 82	19 FEB 83	10 APR 83	30 MAY 83	19 JUL 83	07 SEP 83

SAMPLING DATE

SAMPLING DATE

NOTE: 8 DGS HIDDEN

Figure A38.

SAS  
TOW TYPE=2

100000.00 \*

10000.00 \*

1000.00 \*

100.00 \*

10.00 \*

1.00 \*

0.10 \*

0.01 \*

A C C H O S E I F C R E I I

9

0

8

9

0

9

D

9

0

8

9

0

D

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

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0

06MAR82 25APR82 14JUN82 03AUG82 22SEP82 11NOV82 31DEC82 19FEB83 10APR83 30MAY83 19JUL83 07SEP83

SAMPLING DATE

NOTE: 24 OBS HAD MISSING VALUES OR WERE OUT OF RANGE 1 OBS HIDDEN



Figure A39.

TOM TYPE=3

100000.00 +

10000.00 +

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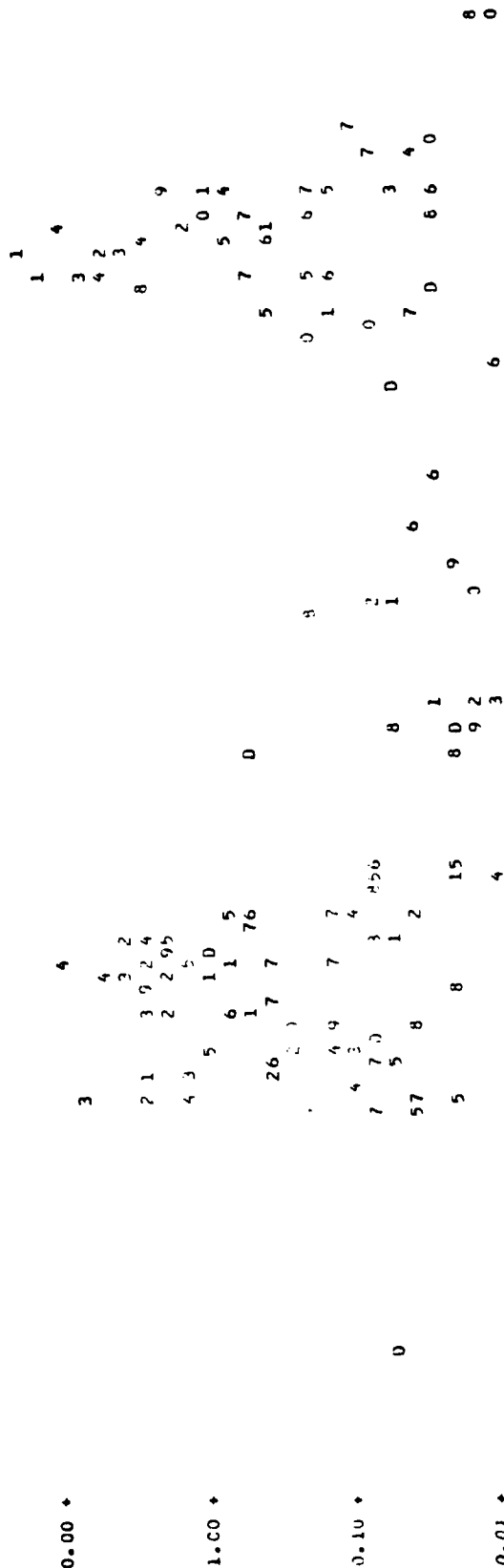
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SAMPLING DATE

26NOV81 15JAN82 06MAR82 25APR82 14JUN82 03AUG82 22SEP82 11NOV82 31DEC82 19FEB83 30MAY83 19JUL83 07SEP83 27OCT83

NOTE: VALUES ARE LOG VALUES OF DATA NOT OF RANGE. 17 JMS 11/10/84

Figure A40.

SAS  
TON TYPE=2

100000.00 \*

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08MAR82 25APR82 14JUN82 03AUG82 22SEP82 11NOV82 31DEC82 19FEB83 10APR83 30MAY83 19JUL83 07SEP83

SAMPLING DATE

NOTE: 35 OBS HAD MISSING VALUES OR WERE OUT OF RANGE

Figure A41.

SAS  
TON TYPE=3

100000.00 +

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26NOV81 15JAN82 06MAR82 25APR82 14JUN82 03AUG82 22SEP82 11NOV82 31DEC82 19FEB83 10APR83 30MAY83 19JUL83 07SEP83 27OCT83

SAMPLING DATE

NOTE: 153 OBS HAD MISSING VALUES OR WERE OUT OF RANGE 1 OBS HIDDEN

Figure A42.

SAS  
TOW TYPE=2

100000.00 +

10000.00 +

1000.00 +

100.00 +

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06MAR82 25APR82 14JUN82 03AUG82 22SEP82 11NOV82 31DEC82 19FEB83 10APR83 30MAY83 19JUL83 07SEP83

SAMPLING DATE

NOTE: 19 OBS HAD MISSING VALUES OR WERE OUT OF RANGE

Figure A43.  
TOM TYPE=2

0.10 +

0.09 +

0.08 +

0.07 +

0.06 +

0.05 +

0.04 +

0.03 +

0.02 +

0.01 +

P O M A T O M U S S A I L A T T R I X

0.00 + D U 25APR82 14JUN82 03AUG82 22SEP82 11NOV82 31DEC82 19FEB83 10APR83 30MAY83 19JUL83 07SEP83 27OCT83

SAMPLING DATE

NOTE: 18 DAS HIDDEN

Figure A44.  
TOW TYPE=3

C.036 \*

C.033 \*

C.030 \*

C.027 \*

C.024 \*

C.021 \*

C.018 \*

C.015 \*

C.012 \*

C.009 \*

C.006 \*

C.003 \*

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26NOV81 15JAN82 06MAR82 25APR82 14JUN82 03AUG82 22SEP82 11NOV82 31DEC82 19FEB83 10APR83 30MAY83 19JUL83 07SEP83 27OCT83

SAMPLING DATE

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**SAMPLING DATE**

NOTE: 149 OBS HAD MISSING VALUES OR WERE CUT OF RANGE 18 OBS HIDDEN

15 JAN 82 06 MAR 82 25 APR 82 14 JUN 82 03 AUG 82 22 SEP 82 11 NOV 82 31 DEC 82 19 FEB 83 10 APR 83 30 MAY 83 19 JUL 83 07 SEP 83 27 OCT 83 16 DEC 83

TYPE=1

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SAMPLING DATE

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Figure A47.  
TONTYPE=1

100000.00 +

10000.00 +

1000.00 +

100.00 +

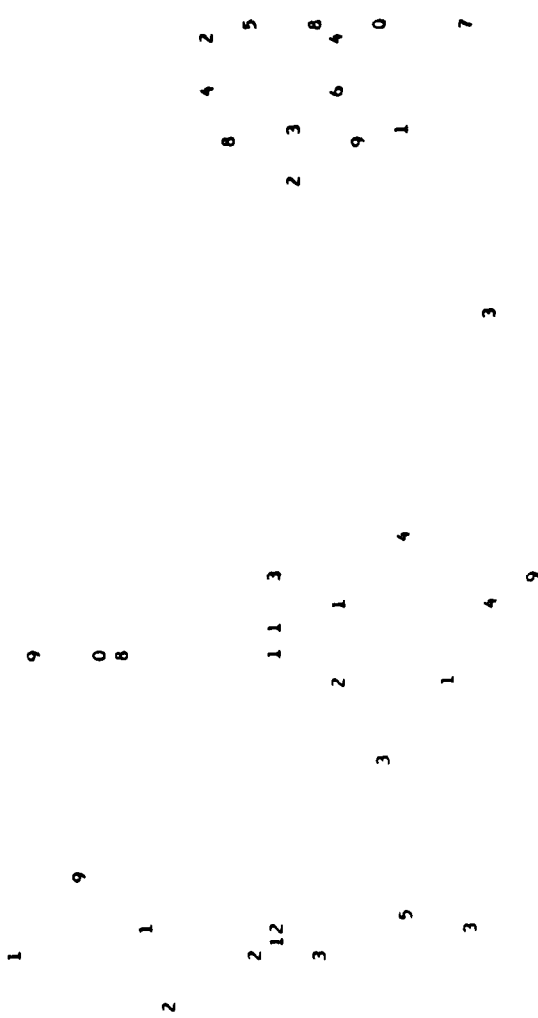
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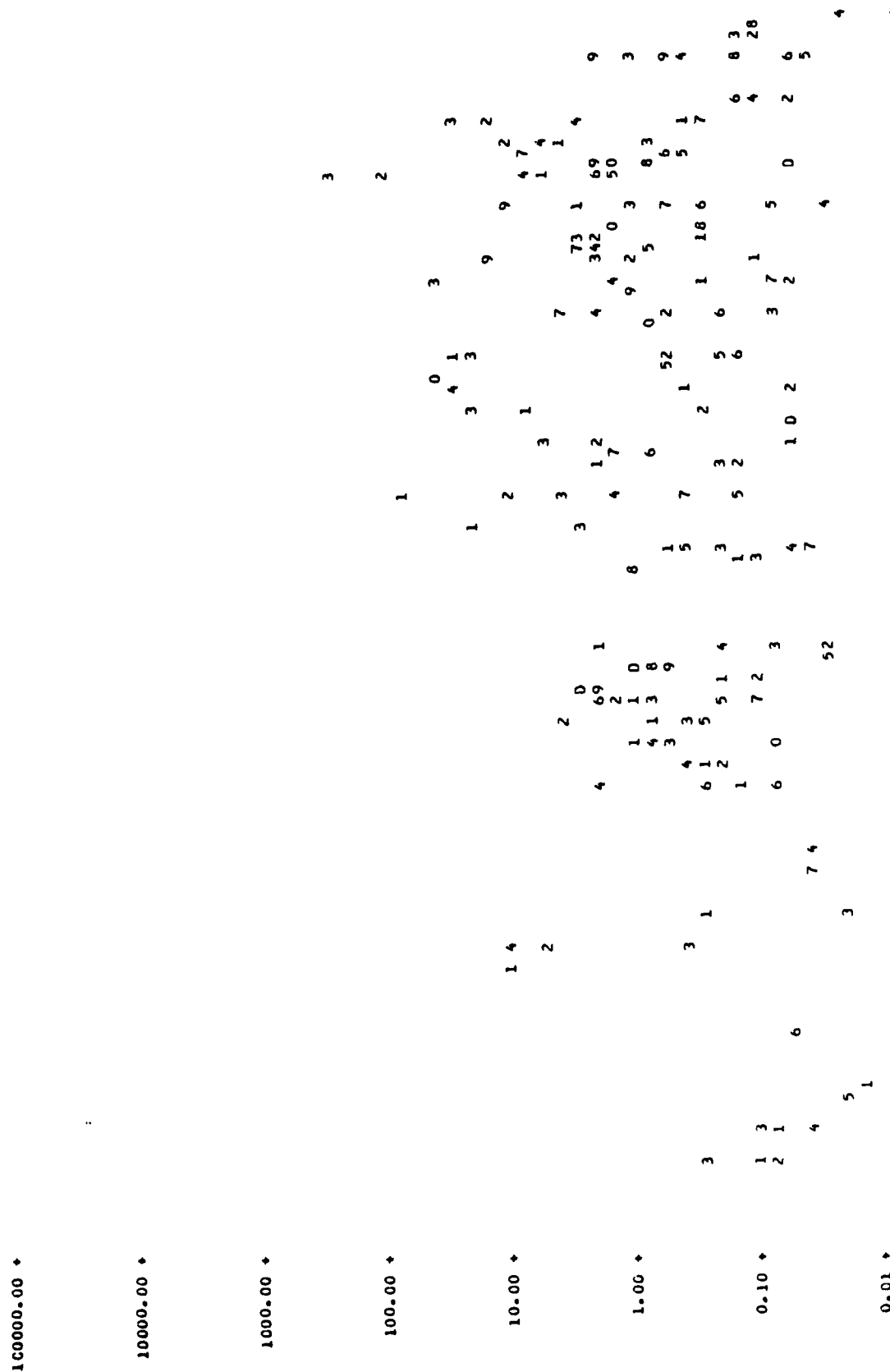
0.01 +

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NOTE: 298 OBS HAD MISSING VALUES OR WERE OUT OF RANGE

Figure A48.  
TOWTYPE=1



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15 JAN 82 06 MAR 82 25 APR 82 14 JUN 82 03 AUG 82 22 SEP 82 11 NOV 82 31 DEC 82 19 FEB 83 10 APR 83 30 MAY 83 19 JUL 83 07 SEP 83 27 OCT 83 16 DEC 83

**SAMPLING DATE**

NOTE: 9 OBS HAD MISSING VALUES OR WERE OUT OF RANGE 51 OBS HIDDEN

Figure A50.

TOW TYPE=1

100000.00 +

10000.00 +

1000.00 +

100.00 +

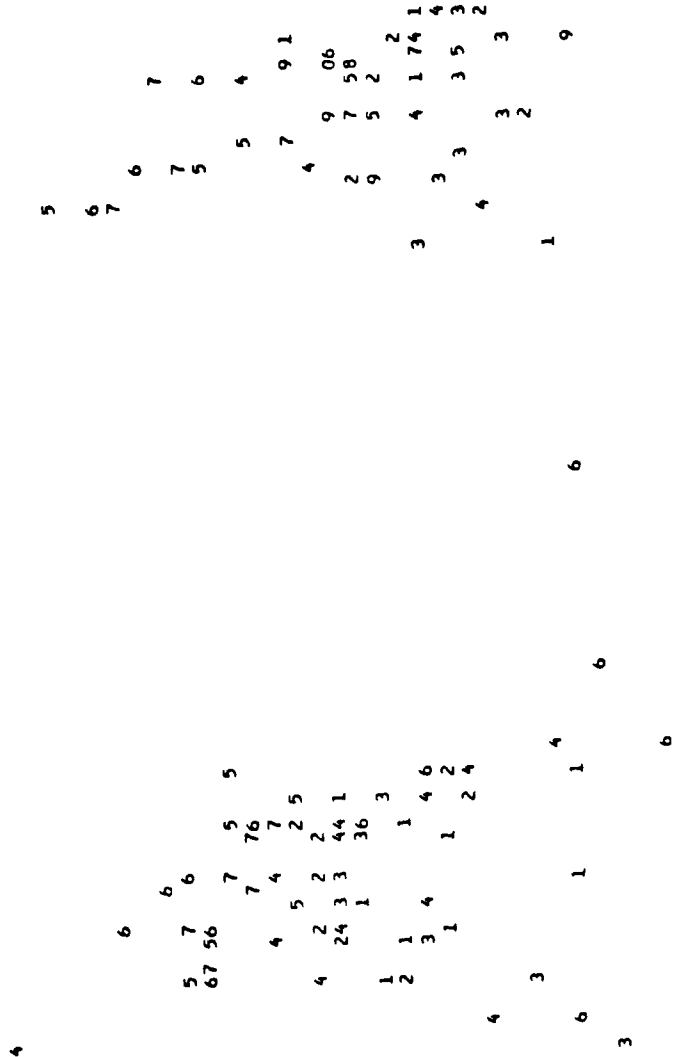
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SAMPLING DATE

12 OBS HIDDEN

217 OBS HAD MISSING VALUES OR WERE OUT OF RANGE

Figure A51.  
TOWTYPE=1

100000.00 +

10000.00 +

1000.00 +

100.00 +

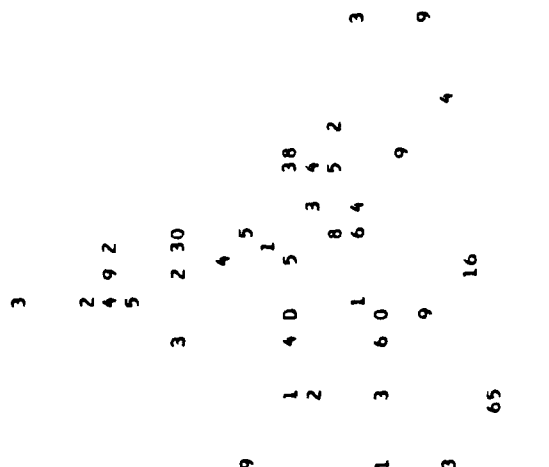
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SAMPLING DATE

NOTE: 231 OBS HAD MISSING VALUES OR WERE OUT OF RANGE 10 OBS HIDDEN

Table A1. Summary statistics for each station/tow type combination. Tow type 1 = 153 micron oblique tows. Tow type 2 = the neuston tows, while tow type 3 = the oblique tows, both are 353 microns. The "MNMNABUN" column are the grand means of the species occurrences from the individual cruise means (n=4) for the station/tow type, while "SEMABUN" are the standard errors of these values. The "MXMABUN" are the maximum cruise means observed for the station/tow type. The "POCCUR" column is the percent occurrence of the groups for the station/tow type. The "PCOVER" values represent the percent occurrence of the groups over an abundance level of  $10/m^3$  for the station/tow type.

NO-A165 341

IMPORTANT MEROPLANKTON OF THE LOWER CHESAPEAKE BAY AND  
PROPOSED NORFOLK D. (U) OLD DOMINION UNIV NORFOLK VA  
APPLIED MARINE RESEARCH LAB A J BUTT ET AL. MAR 85

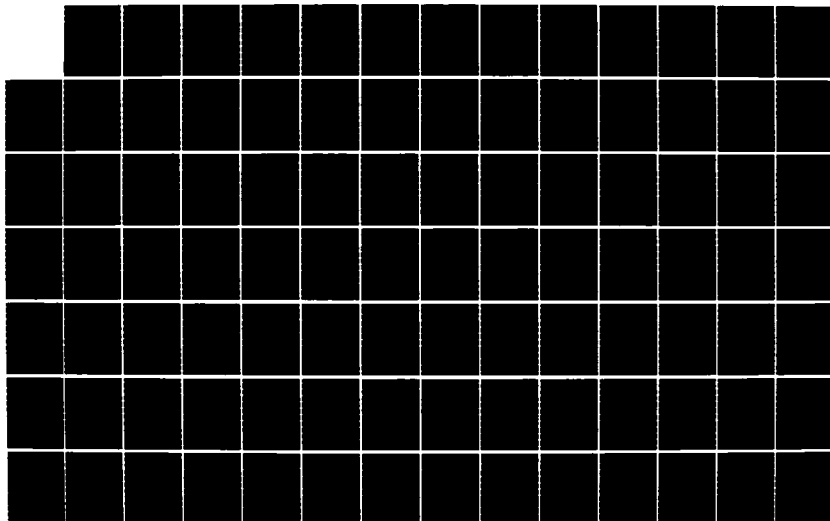
2/3

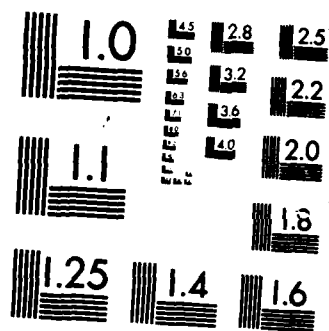
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MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS-1963-A



Table A1.

----- IDTYPE 1=153U08L 2=353UNEUST 3=35308L=1 STATION=1 -----

NAME	MMNABUN	SEMABUN	MXNABUN	POCCUR	PCJVER
All Bivalves	1688.56	1276.76	52639.9	100.000	97.5610
Bivalve B	1688.02	1276.78	52639.9	100.000	97.5610
Larvacea	449.49	273.36	7465.7	65.854	51.2195
Polychaeta	26.95	11.34	351.5	97.561	29.2683
Polychaeta	6.79	5.47	50.0	21.951	2.4390
Polychaeta	5.55	2.63	68.4	68.293	7.3171
Lyster	1.17	0.40	5.6	34.146	.
Phoronida	0.49	0.15	1.8	31.707	.
Mytilidae spp	0.10	0.05	0.2	7.317	.

----- IDTYPE 1=153U08L 2=353UNEUST 3=35308L=1 STATION=2 -----

NAME	MMNABUN	SEMABUN	MXNABUN	POCCUR	PCJVER
All Bivalves	1462.11	1111.37	46904.5	100.000	90.4762
Bivalve B	1461.43	1111.39	46904.5	100.000	90.4762
Larvacea	138.26	58.27	1268.4	71.429	26.1405
Polychaeta	56.46	19.76	679.1	100.000	42.8571
Polychaeta	6.05	3.93	94.7	57.143	4.7619
Phoronida	5.95	3.41	48.4	38.035	7.1429
Polychaeta	1.94	0.82	5.7	14.286	.
Gyster	1.89	0.43	5.6	35.714	.

----- IDTYPE 1=153U08L 2=353UNEUST 3=35308L=1 STATION=3 -----

NAME	MMNABUN	SEMABUN	MXNABUN	POCCUR	PCJVER
All Bivalves	5150.43	3299.45	107478	100.000	90.4762
Bivalve B	5149.92	3298.47	107478	100.000	88.0952
Larvacea	123.50	52.99	1165	60.667	30.9524
Polychaeta	41.56	12.62	389	95.238	42.3571
Polychaeta	13.56	8.92	241	64.286	11.9048
Phoronida	3.87	2.09	41	61.905	4.7619
Mytilidae spp	2.02	2.01	4	4.762	.
Lyster	0.86	0.21	3	35.714	.
Polychaeta	0.44	0.17	1	14.286	.

Table A1. (Continued)

TOWTYPE 1=153U08L 2=353UNEUST 3=35308L=1 STATION=4						
NAPE	MNMABUN	SEMABUN	MXMABUN	POCCUR	PCOVER	
All Bivalves	3510.04	2356.60	85232.8	100.000	81.0811	
Bivalve B	3499.51	2354.86	85232.8	100.000	81.0811	
Polychaeta	238.47	237.67	1189.1	13.514	2.7027	
Larvacea	55.61	29.69	534.2	56.757	18.9189	
Polychaeta	53.39	19.14	626.4	77.247	43.2432	
Lyster	20.44	18.16	347.2	51.351	2.7027	
Phoronida	6.23	3.88	77.9	56.757	8.1081	
Polychaeta	3.85	1.48	30.0	64.865	8.1081	
Amphipoda spp	0.13	0.04	0.2	5.405	.	
Trochophores & Nectochaetes						
TOWTYPE 1=153U08L 2=353UNEUST 3=35308L=1 STATION=5						
NAPE	MNMABUN	SEMABUN	MXMABUN	POCCUR	PCOVER	
Polychaeta	115.975	47.3315	1160.65	97.277	48.6486	
All Bivalves	94.405	29.2762	792.73	100.000	62.1622	
Bivalve B	84.021	26.2017	792.73	100.000	62.1622	
Lyster	20.889	12.4986	205.98	43.743	18.9189	
Phoronida	1.497	0.8538	7.14	21.622	.	
Polychaeta	1.476	1.1863	20.41	45.946	2.7027	
Polychaeta	0.726	0.5636	1.29	5.405	.	
Larvacea	0.658	0.3386	5.90	45.946	.	
Trochophores & Nectochaetes						
TOWTYPE 1=153U08L 2=353UNEUST 3=35308L=1 STATION=6						
NAPE	MNMABUN	SEMABUN	MXMABUN	PUCCJR	PCOVER	
Polychaeta	104.597	44.2506	1327.83	100.000	47.2222	
All Bivalves	67.295	26.9943	899.54	94.444	52.7778	
Bivalve B	56.860	26.0606	868.09	94.444	50.0000	
Lyster	18.052	5.7907	93.57	55.556	25.0000	
Larvacea	1.609	1.2039	22.41	47.222	2.7776	
Polychaeta	0.434	0.1534	2.13	44.444	.	
Polychaeta	0.373	.	0.37	2.778	.	
Phoronida	0.120	0.0474	0.36	22.222	.	
Trochophores & Nectochaetes						

Table A1. (Continued)

TOWTYPE 1-L53U0BL 2-J53UNEUST 3=3530BL-1 STATION=7						
NAME	MMNABUN	SEMNABUN	MXMNABUN	POCCUR	PCOVER	
Polychaeta	105.808	32.1730	732.943	100.000	45.7143	
All Bivalves	26.121	7.6291	216.468	100.000	42.8571	
divalve B	18.708	6.0087	184.655	100.000	37.1429	
Lyster	15.440	4.2949	62.251	45.714	22.3571	
Larvacea	3.729	2.2747	25.037	31.429	2.8571	
Polychaeta	1.556	0.6080	7.288	42.857	.	
Phoronida	0.100	0.0193	0.138	8.571	.	
Pyralidae spp	0.035	.	0.035	2.857	.	
Polychaeta	0.027	0.0185	0.046	5.714	.	
Trachophores & Nectochaetes						
Magelonidae						

TOWTYPE 1-L53U0BL 2-J53UNEUST 3=3530BL-1 STATION=8						
NAME	MMNABUN	SEMNABUN	MXMNABUN	POCCUR	PCOVER	
All Bivalves	471.924	245.455	3558.09	93.333	93.3333	
divalve B	471.326	245.529	3558.04	93.333	93.3333	
Larvacea	137.475	115.096	938.73	53.333	20.3000	
Polychaeta	102.889	66.235	1010.56	100.000	46.6667	
Polychaeta	4.674	3.541	11.72	20.000	6.6667	
Lyster	1.887	.	1.89	6.667	.	
Phoronida	0.581	0.200	0.78	13.333	.	
Polychaeta	0.553	0.140	0.96	46.667	.	
Trachophores & Nectochaetes						

TOWTYPE 1-L53U0BL 2-J53UNEUST 3=3530BL-1 STATION=9						
NAME	MMNABUN	SEMNABUN	MXMNABUN	POCCUR	PCOVER	
Larvacea	513.386	407.567	5771.80	53.846	23.0769	
All Bivalves	439.166	203.877	4513.06	88.462	80.7692	
divalve B	433.299	203.762	4513.06	88.462	76.9231	
Polychaeta	95.314	46.595	1122.51	100.000	50.0000	
Pyralidae spp	21.732	.	21.73	3.846	3.8462	
Polychaeta	13.248	8.276	34.60	15.385	7.6923	
Polychaeta	3.489	1.428	14.09	42.308	7.6923	
Lyster	2.399	1.081	5.06	15.385	.	
Phoronida	2.251	1.812	11.23	23.077	3.8462	
Trachophores & Nectochaetes						

Table A1. (Continued)

ICWTYPE 1=153U0BL 2=353UNEUST 3=353OBL=1 STATION=05						
NAME	MNMNABUN	SEMNAUN	MXMNABUN	POCCUR	PCOVER	
All Bivalves	2410.15	1371.06	14991.7	91.6667	83.3333	
Bivalve B	2409.77	1371.13	14991.7	91.6667	83.3333	
Larvacea	52.67	29.48	234.1	96.6667	33.3333	
Polychaeta	17.28	16.32	180.5	91.6667	8.3333	
Polychaeta	1.03	0.69	3.0	33.3333	.	
Phoronida	0.82	.	0.8	8.3333	.	
Spionidae						
Trochophores & Nectochaetes						

ICWTYPE 1=153U0BL 2=353UNEUST 3=353OBL=1 STATION=10						
NAME	MNMNABUN	SEMNAUN	MXMNABUN	POCCUR	PCOVER	
All Bivalves	968.493	923.752	10019.6	92.308	92.3077	
Bivalve B	967.904	923.810	10019.6	92.308	92.3077	
Polychaeta	106.730	57.830	682.3	100.000	61.5385	
Larvacea	38.753	21.293	159.8	53.846	30.7692	
Polychaeta	8.147	7.203	36.9	38.462	7.6923	
Polychaeta	8.127	7.925	16.1	15.385	7.6923	
Phoronida	4.490	4.286	8.8	15.385	.	
Oyster	2.744	.	2.7	7.692	.	
Trochophores & Nectochaetes						
Spionidae						

Table A1. (Continued)

	TOM TYPE=3	STATION=1	
NAME	MMNABUN	SEMNABUN	MXMNABUN
Callinectes sp zoea	65.8338	27.6952	499.263
Larvacea	43.6588	16.2167	477.486
Engraulidae egg	33.4879	25.9444	443.311
Crangon septemspinosus	19.3164	5.3834	157.190
Gastropods	14.7397	7.4064	194.610
Sciaenidae egg	12.1747	7.7798	179.705
All Fish eggs	9.8467	6.0271	179.705
Uca spp	6.5540	5.7223	120.852
Bosmanella dissimilis	4.7364	3.2226	33.303
Cancer irroratus zoea	4.4934	2.4633	59.037
Pagurid Crabs	3.8599	0.9204	19.899
Acetes caroliniae	2.8310	2.3187	23.662
Upogebia affinis	2.6555	0.9810	18.838
Engraulidae	2.6038	1.4435	18.357
Lucifer Faxoni	2.4171	0.9842	15.885
Pinixa spp	2.2298	0.7921	17.610
Mysidopsis bigelowi	1.8964	0.7491	21.171
Echinodermata	1.7731	0.7109	8.843
Xanthid Crabs	1.6836	0.6370	12.910
Callinassa spp	1.4331	0.6244	9.695
Pinnotheres spp	1.3956	0.4476	10.481
Neomysis americana	1.3501	0.4476	13.812
Emerita talpoida	1.0310	0.6572	12.025
Euceramus praelongus	0.8964	0.3153	6.363
Other Fish Eggs	0.8571	0.5316	8.225
Polychaeta	0.7817	0.7330	10.362
Trochophores & Nectochaetes	0.7493	0.2334	4.605
Gvalipes quadripennis zoea	0.6474	0.2528	3.538
Libinia spp zoea	0.6232	0.3342	2.323
Libinia dubia Megalopa	0.6114	0.2159	3.800
Polychaeta	0.6016	0.1365	0.611
Nereidae	0.5767	0.3092	4.016
Anadara spp	0.4954	0.2525	4.156
Spionidae	0.4558	0.2661	2.481
Terebellidae spp	0.4375	0.1665	3.014
Naushonia crangonoides	0.4262	0.3202	2.372
Polychaeta	0.4009	0.2554	1.654
Magelonidae	0.3977	0.1063	0.945
Squilla (tempusa?) protozoea	0.3886	0.0919	0.389
Alpheidae	0.3733	0.1036	1.867
Hypsoblennius hentzi	0.3242	0.1867	55.814
Alpheus normanni	0.2905	0.1613	25.581
Squilla Antizoea	0.2878	0.0838	51.163
Persephone punctata	0.2874	0.0703	1.000
All Bivalves	0.2628	0.0429	34.884
Other Bivalves	0.2549	0.1544	6.977
Ammodytes hexapterus	0.2320	0.1376	34.884
Palaeomonetes spp	0.2164	0.2108	27.907
Ugyrides limicola	0.2159	0.0808	4.651
Pennaeid shrimp	0.1781	0.0210	30.233
Scophthalmus aquasus	0.1751	0.0576	6.977
Bothidae	0.1720	0.0538	9.302
Callinectes sp megalopa			20.930
Palaeomonidae palaeomoninae			23.256
pivalve B			
Uvalipes zoea			
Libinia emarginata Megalopa			
Bothidae egg			
Bothidae			
Etrupus microstomus			
POCCUR			
PCOVER			

Table A1. (Continued)

NAME	ION TYPE-3	STATION-1	MMNABUN	SEMABUN	MXMABUN	POCCUR	PCOVER
Alpheus heterochaelis	0.167275	.	0.16727		0.16727	2.3256	.
Ameritine Piliidum larva	0.141000	.	0.14100		0.14100	2.3256	.
Phoronida	0.136246	0.0853760	1.65122		1.65122	44.1860	.
Gobiidae	0.126614	0.0772505	1.09300		1.09300	32.5581	.
Gobiosoma bosci	0.106617	0.0801363	0.26657		0.26657	6.9767	.
Tomopteris spp	0.105212	0.0360545	0.37502		0.37502	23.2558	.
Lepidopa websteri	0.102937	0.0937125	0.19665		0.19665	4.6512	.
Triglidiae	0.097883	0.0530703	0.19197		0.19197	6.9767	.
Prionotus carolinus	0.093075	0.0411273	0.17507		0.17507	6.9767	.
Dissoedactylus mellittae zoea	0.092812	0.0752625	0.16807		0.16807	4.6512	.
Cancer #2 zoea	0.087917	0.0713598	0.23035		0.23035	6.9767	.
Metamysidopsis	0.087731	0.0698188	0.29607		0.29607	9.3023	.
Portunus sp zoea	0.086350	.	0.08635		0.08635	2.3256	.
Syngnathidae	0.083137	0.0535625	0.13670		0.13670	4.6512	.
Syngnathus fuscus	0.067695	0.0265718	0.27537		0.27537	23.2558	.
Crustacean 2	0.064442	0.0201661	0.10405		0.10405	6.9767	.
Engraulidae fry	0.060225	.	0.06022		0.06022	2.3256	.
Autolytus spp	0.050075	0.0261947	0.09870		0.09870	6.9767	.
Polyonyx gibbsi	0.048683	0.0215466	0.12985		0.12985	13.9535	.
Trinectes maculatus	0.046225	0.0107929	0.06392		0.06392	6.9767	.
Hippolyte pleuracantha	0.044537	0.0322375	0.07677		0.07677	4.6512	.
Sciaenidae spp	0.030991	0.0095319	0.07097		0.07097	18.6047	.
Sciaenidae	0.024862	0.0171875	0.04205		0.04205	4.6512	.
Megalopa A	0.024575	.	0.02457		0.02457	2.3256	.
Unidentifiable fish	0.018365	0.0061661	0.03857		0.03857	11.6279	.
Shrimp 6	0.017825	0.0044080	0.02735		0.02735	11.6279	.
Rissola marginata	0.017292	0.0116725	0.04052		0.04052	6.9767	.
Cynocion regalis	0.016844	0.0055532	0.03057		0.03057	9.3023	.
Peprius triacanthus	0.016350	.	0.01635		0.01635	2.3256	.
Symphurus piagiua	0.012300	.	0.01230		0.01230	2.3256	.
Megalopa U	0.011912	0.0065125	0.01842		0.01842	4.6512	.
Quailpes quadripennis megalopa	0.009312	0.0033375	0.01265		0.01265	4.6512	.
Sciaenidae	0.009012	0.0053588	0.02505		0.02505	9.3023	.
Leiostomus xanthurus	0.008675	.	0.00867		0.00867	2.3256	.
Pinnotheres zoea	0.007550	.	0.00755		0.00755	2.3256	.
Cancer sp megalopa	0.007400	.	0.00740		0.00740	2.3256	.
Gobiesocidae	0.007200	.	0.00720		0.00720	2.3256	.
Gobiosox strumosus	0.006525	.	0.00652		0.00652	2.3256	.
Leptocheila serratorbita	0.005725	.	0.00572		0.00572	2.3256	.
Ophidiidae	0.005325	.	0.00532		0.00532	2.3256	.
Rissola spp	0.002850	.	0.00285		0.00285	2.3256	.
Polychaete E	0.002250	.	0.00225		0.00225	2.3256	.
Polychaeta							
Pherusa sp							
Brevoortia tyrannus							
Clupeidae							
Megalopa B							
Tetraodontidae							
Sphaeroides maculatus							
Enchelyopus cimbrius							

Table A1. (Continued)

NAME	MMNABUN	SEMABUN	MXNABUN	POCCUR	PCOVER
Callinectes sp zoea	29.9762	14.1638	236.636	47.619	14.2857
Engraulidae egg	28.7529	11.0789	174.397	38.095	16.6667
Larvacea	22.0265	11.6578	336.960	71.429	21.4286
Crangon septemspinosa	15.5098	5.8199	187.191	100.000	23.8095
Sciaenidae egg	11.1455	5.2685	97.069	66.667	9.5238
Upogebia affinis	10.3413	2.6193	35.829	47.619	19.0476
All Fishes	9.6549	4.5227	104.666	80.952	9.5238
Pagurid Crabs	7.5206	4.4100	116.617	64.286	7.1429
Cancer irroratus zoea	4.8018	4.0049	96.723	57.143	2.3810
Pinnixa spp	4.4122	1.4575	36.241	71.429	7.1429
Neomysis americana	4.3997	1.8785	61.796	80.952	7.1429
Xanthid Crabs	4.0801	1.4199	33.502	66.667	4.7619
Uca spp	3.9938	1.7964	34.463	45.238	4.7619
Pinnotheres spp	3.3397	1.0036	15.968	47.619	4.7619
Callinassa spp	3.3275	1.2500	18.857	40.476	9.5238
Gastropods	3.1130	0.9201	23.160	78.571	4.7619
Polychaeta	2.6779	1.7079	65.577	95.238	2.3810
Engraulidae	2.4744	1.0098	15.193	35.714	4.7619
Anchoa mitchelli	2.3531	1.3090	3.662	4.762	7.1429
Pinnotheres zoea	1.9416	0.7605	10.791	52.381	7.1429
Myxidopsis bigelovi	1.4676	0.4131	6.917	59.524	7.1429
Euceramus praelongus	1.2077	0.3589	2.999	23.810	7.1429
Homantella dissimilis	0.9146	0.2917	4.653	45.238	7.1429
Emerita talpoida	0.8303	0.6786	7.597	26.190	7.1429
Leptodopa websteri	0.7471	0.6600	4.041	14.286	7.1429
All Bivalves	0.6424	0.3688	10.069	64.286	7.1429
Other Bivalves	0.6187	0.3687	10.061	64.286	7.1429
Libinia spp zoea	0.6099	0.1888	2.659	42.857	7.1429
Palaeomonetes spp	0.5469	0.2327	6.306	66.667	7.1429
Other Fish Eggs	0.5042	0.2072	2.722	33.333	7.1429
Polychaeta	0.4983	0.2145	3.397	38.095	7.1429
Lucifer Faxoni	0.4859	0.1308	2.072	42.857	7.1429
Gobidae	0.4475	0.1351	1.971	40.476	7.1429
Gobiosoma bosci	0.4212	0.1824	3.158	40.476	7.1429
Ogyridae limicola	0.4038	0.3553	0.759	4.762	7.1429
Polyonyx globesi	0.3847	0.1250	1.957	45.238	7.1429
Uvalipes quadrupennis zoea	0.3632	0.1525	1.237	23.810	7.1429
Squilla Antizoea	0.3195	0.1042	1.305	38.095	7.1429
Squilla (empusa?) protozoea	0.2859	0.1492	1.730	26.190	7.1429
Acetes caroliniae	0.2851	0.2102	2.371	26.190	7.1429
Naushonia crangonoides	0.2823	0.2377	0.756	7.143	7.1429
Uvalipes zoea	0.2174	0.0601	1.038	54.762	7.1429
Polychaeta	0.2113	0.0572	0.622	33.333	7.1429
Polychaeta	0.1677	0.1590	0.327	4.762	7.1429
Cancer #2 zoea	0.1368	0.0028	0.140	4.762	7.1429
Echinodermata	0.1357	0.0667	0.205	7.143	7.1429
Phoronida	0.1355	0.0415	0.876	50.000	7.1429
Polychaeta	0.1281	0.1106	0.239	4.762	7.1429
Libinia emarginata Megalopa	0.1109	0.0488	0.200	9.524	7.1429
Libinia dubia Megalopa	0.1108	0.0766	0.490	14.286	7.1429
Ucrpode sp zoea	0.1033	0.0338	0.103	2.381	7.1429
dientiroe	0.0975	0.0975	0.483	30.952	7.1429
Polychaeta	0.0924	0.0540	0.672	35.714	7.1429
Soleidae	0.0898	0.0314	0.121	4.762	7.1429
Hypoblenius hentzi					
Trochophores & Nectochaetes					
Trinectes maculatus					

Table A1. (Continued)

		TOW TYPE=3		STATION=2					
NAME		MMNABUN	SENNABUN	MYNABUN	POCCUR	PCOVER			
Polychaeta	Autolytus spp	0.0865675	0.0376594	0.337250	23.8095	.			
Bivalve B		0.0829893	0.0497480	0.362225	16.6667	.			
Sciaenidae	Cynoscion regalis	0.0811667	0.0280235	0.118600	7.1429	.			
Bothidae	Etropus microstomus	0.0804000	0.0351217	0.148750	9.5238	.			
Bothidae	Scophthalmus aquasus	0.0660250	0.0310162	0.190875	14.2857	.			
Callinectes sp	megaloopa	0.0621023	0.0247554	0.289350	26.1905	.			
Alpheus normanni		0.0576550	0.0177811	0.095100	11.9048	.			
Portunus sp	zoea	0.0488875	0.0262875	0.075175	4.7619	.			
Gobiesocidae	Gobiosox strumosus	0.0471125	0.0369889	0.157425	9.5238	.			
Hippolyte	pleuracantha	0.0416875	0.0101806	0.062150	9.5238	.			
Cancer sp	megaloopa	0.0407250	0.0158874	0.067925	7.1429	.			
Dissodactylus	mellitae zoea	0.0374200	0.0130154	0.081225	11.9048	.			
Amodytidae	Amodytes hexapterus	0.0333375	0.0161672	0.111475	14.2857	.			
Penaeid shrimp		0.0319917	0.0062299	0.053325	14.2857	.			
Mulinia lateralis		0.0315000	.	0.031500	2.3810	.			
Unidentifiable fish		0.0300500	0.0139572	0.057950	7.1429	.			
Palaeomonidae	palaeomoninae	0.0298250	0.0155250	0.045350	4.7619	.			
Yoldia limatula	nuclidii	0.0275500	.	0.027550	2.3810	.			
Pomatomidae	Pomatomus saltatrix	0.0185750	.	0.018575	2.3810	.			
Portunus spinicarpus	Megalopa	0.0177625	0.0056875	0.023450	4.7619	.			
Megalopa A		0.0125375	0.0021175	0.017500	9.5238	.			
Leptochela serratorbita		0.0120750	.	0.012075	2.3810	.			
Polychaeta	Nephtys sp	0.0112625	0.0073125	0.018575	4.7619	.			
Lysmata		0.0105750	.	0.010575	2.3810	.			
Syngnathidae	Syngnathus fuscus	0.0090000	0.0022627	0.015475	9.5238	.			
Anguillidae	Anguilla rostrata	0.0078500	0.0004250	0.008275	4.7619	.			
Fish - unknown		0.0077500	.	0.007750	2.3810	.			
Polychaete A		0.0073500	.	0.007350	2.3810	.			
Clupeidae	Brevoortia tyrannus	0.0068000	.	0.006800	2.3810	.			
Sciaenidae	Leiostomus xanthurus	0.0066750	.	0.006675	2.3810	.			
Tetraodontidae	Sphaeroides maculatus	0.0061750	.	0.006175	2.3810	.			
Syngnathidae	Hippocampus eratus	0.0034250	.	0.003425	2.3810	.			



Table A1. (Continued)

TOW TYPE=3 STATION=3					
NAME	MNMABUN	SEMNABUN	MXMNABUN	POCCUR	PCOVER
Larvacea	27.3685	12.1001	305.598	65.8537	21.9512
Engraulidae egg	22.3209	9.4113	122.834	39.0244	14.6341
Pinnixa spp	17.4886	13.5948	369.626	65.8537	9.7561
Crangon septemspinosa	17.2567	6.0321	203.110	95.1220	31.7073
Callinectes sp zoea	15.5081	6.2512	75.440	43.9024	12.1951
Upolybia affinis	15.3502	10.4333	219.597	51.2195	9.7561
Pinnotheres spp	12.4365	10.2713	196.692	46.3415	4.8780
Gastropods	8.7372	6.5680	185.285	68.2927	7.3171
Xanthid Crabs	7.9953	6.1651	161.408	63.4146	4.8780
Mysidopsis bigelowi	7.9697	6.2376	136.297	53.6585	4.8780
Pagurid Crabs	7.4370	5.2379	142.352	65.8537	4.8780
All Fish eggs	7.1740	2.6943	61.973	82.9268	12.1951
Sciaenidae egg	6.1597	2.7104	61.973	75.6098	9.7561
Atherinidae	6.1083	.	6.108	2.4390	.
Lucifer Faxonii	4.7334	4.3171	78.101	43.9024	2.4390
Libinia dubia Megalopa	4.6409	2.6027	18.368	17.0732	2.4390
Callinassa spp	4.4203	1.5553	18.465	39.0244	7.3171
Other Fish Eggs	4.1293	3.2771	39.861	29.2683	2.4390
Other Bivalves	3.9267	2.5726	61.963	58.5366	4.8780
All Bivalves	3.8029	2.4063	62.807	63.4146	4.8780
Uca spp	3.3084	1.4629	27.900	46.3415	2.4390
Cancer irroratus zoea	2.7807	1.9889	41.383	51.2195	4.8780
Euceramys praelongus	2.3528	1.4078	31.466	53.6585	2.4390
Neomysis americana	2.3185	0.7921	23.703	80.4878	2.4390
Acetes caroliniae	2.0406	1.5215	17.198	26.8293	2.4390
Engraulidae	1.8463	0.7107	7.809	34.1463	.
Alpheus heterochaelis	1.6316	.	1.632	2.4390	.
Polychaeta	1.5612	0.4791	12.952	90.2439	4.8780
Gobiidae	1.1511	1.0742	17.261	39.0244	2.4390
Bomaniella dissimilis	1.0810	0.4324	2.128	12.1951	.
Polychaeta	0.9481	0.5001	7.188	34.1463	.
Terebellidae spp	0.9203	0.2729	4.424	46.3415	.
Palaeomonetes spp	0.8314	0.4327	6.068	34.1463	.
Libinia spp zoea	0.8112	0.2757	4.275	43.9024	.
Ovalipes quadripennis zoea	0.8103	0.3463	4.885	36.5854	.
Emerita talpoida	0.7022	0.3627	3.951	26.8293	.
Callinectes sp megalopa	0.6392	0.3504	3.347	24.3902	.
Naushonia crangonoides	0.5731	0.3404	6.636	46.3415	.
Ugyrides limicola	0.5428	0.5277	1.598	7.3171	.
Lissola marginata	0.5126	0.4619	1.435	7.3171	.
Libinia emarginata Megalopa	0.4514	0.1738	2.185	31.7073	.
Squilla (empusa?) protozoea	0.4340	0.2079	2.975	36.5854	.
Polychaeta	0.4267	0.2679	2.074	19.5122	.
Bothidae egg	0.4208	0.3337	3.072	21.9512	.
Bivalve B	0.4015	0.3976	0.799	4.8780	.
Paralichthys dentatus	0.3665	0.3632	0.730	4.8780	.
Polynidae	0.3004	0.2361	0.768	7.3171	.
Feliniidae spp	0.2987	0.0898	1.513	63.4146	.
Sciaenidae	0.2889	0.1431	3.197	53.6585	.
Cynocion regalis	0.2653	0.2036	0.874	9.7561	.
Nereidae	0.2424	.	0.242	2.4390	.
Alpheus normanni	0.2235	0.1078	1.136	29.2683	.
Persephone punctata	0.2047	0.1299	0.718	12.1951	.
Squilla Antizoea	0.1947	0.1103	0.567	12.1951	.
Ucyode sp zoea					.
Etropus microstomus					.
Bothidae					.

Table A1. (Continued)

NAME	TUM TYPE=3	STATION=3	SENNABUN	MXNABUN	PCCJR	PCOVER
Amodytidae						
Amodytes hexapterus			0.0336246	0.209025	9.7561	.
Polychaeta						
Trochophores & Nectochaetes			0.140255	0.607650	34.1463	.
Cancer #2 zoea			0.107537	0.109600	4.8780	.
Bothidae			0.101556	0.418825	21.9512	.
Yoldia limatula			0.096725	0.096725	2.4390	.
Blennidae			0.094822	0.242950	21.9512	.
Hypsoblenius hentzi			0.092150	0.092150	2.4390	.
Polychaete E						
Hippolyte pleuracantha			0.089353	0.288775	19.5122	.
Polychaeta			0.084966	0.411675	26.8293	.
Autolytus spp			0.0345144	0.083350	2.4390	.
Megalopa B			0.083350	0.0536125	4.8780	.
Echinodermata			0.078337	0.131950	7.3171	.
Ovalipes zoea			0.066358	0.119475	7.3171	.
Polyonyx globesi			0.064408	0.126400	7.3171	.
Sciaenidae			0.062375	0.062375	2.4390	.
Microgonyus undulatus						
Lepidopa websteri			0.056811	0.178625	17.0732	.
Dissodactylus mellitae zoea			0.056487	0.087875	4.8780	.
Soleidae			0.055825	0.055825	2.4390	.
Trinectes maculatus			0.034762	0.050200	4.8780	.
Fish - unknown						
Polychaeta			0.033325	0.053725	4.8780	.
Tomopteris spp						
Polychaete F			0.031775	0.031775	2.4390	.
Cynoglossidae			0.031125	0.050925	4.8780	.
Symphurus plagiura			0.0198000	0.026850	2.4390	.
Megalopa A			0.026850	0.026850	2.4390	.
Lysmata			0.025800	0.025800	2.4390	.
Palaeonidae palaeoninae			0.025575	0.025575	2.4390	.
Sciaenidae			0.023558	0.048225	7.3171	.
Leiostomus xanthurus						
Shrimp 6			0.022175	0.022175	2.4390	.
Triglididae			0.019700	0.019700	2.4390	.
Prionotus carolinus			0.017575	0.017575	2.4390	.
Mulinia lateralis						
Cancer sp megalopa			0.016737	0.0025875	4.8780	.
Syngnathidae			0.015242	0.0021434	7.3171	.
Syngnathus fuscus						
Stromateidae			0.014556	0.023000	9.7561	.
Peprilus triacanthus						
Portunus sp zoea			0.010875	0.010875	2.4390	.
Gobiocidae			0.008800	0.008800	2.4390	.
Gobiosox strumosus						
Syngnathidae			0.007400	0.007400	2.4390	.
Hippocampus eratus						
Ophidiidae			0.007325	0.007325	2.4390	.
Ophidiid spp						
Tetraodontidae			0.005762	0.007950	4.8780	.
Sphaeroides maculatus						
Penaeid shrimp			0.005575	0.007275	4.8780	.
Crustacean 1			0.003275	0.003275	2.4390	.
Unidentified fish			0.002700	0.003275	4.8780	.
Clupeidae			0.002425	0.002425	2.4390	.
Brevoortia tyrannus						

Table A1. (Continued)

NAME	MMNABUN	SENNABUN	MXNABUN	POCCJR	PCOVER
Engraulidae egg	26.2780	10.8620	159.146	45.9459	18.9189
Larvacea	16.3736	9.6331	183.145	51.3514	13.5135
Upogebia affinis	13.6884	3.9257	70.800	51.3514	24.3243
Other Fish Eggs	10.3036	6.8479	93.450	37.8378	8.1081
Callinectes sp zoea	10.2450	3.9029	63.623	45.9459	16.2162
All Fish eggs	7.3700	4.0910	94.142	64.8649	8.1081
Cragdon septemspinosa	7.2765	2.4273	50.907	86.4865	16.2162
Xanthid Crabs	4.9722	1.3963	26.998	64.8649	13.5135
Uca spp	3.4550	1.2940	16.988	43.2432	5.4054
Pinnotheres spp	3.2499	0.9856	14.246	45.9459	2.7027
Gastropods	2.9568	1.1381	30.322	75.6757	5.4054
Pinna spp	2.4971	0.8206	18.308	62.1622	2.7027
Engraulidae	2.3224	0.7831	9.630	45.9459	.
Anchoa mitchelli	2.2482	1.1941	4.560	8.1081	.
Pinnotheres zoea	1.6092	0.5236	8.935	54.0541	.
Sciaenidae egg	1.2516	0.8576	12.321	37.8378	2.7027
Callinassa spp	1.1259	0.5989	17.338	83.7838	2.7027
Polychaeta	1.1031	0.4980	10.907	78.3784	2.7027
Neomysis americana	0.8273	0.2118	3.421	62.1622	.
Euceramys praelongus	0.8254	0.2692	6.780	67.5676	.
Pagurid Crabs	0.7930	0.3019	5.079	48.6486	.
Palaeomonetes spp	0.7690	0.2213	2.936	45.9459	.
Ogyrids limicola	0.6672	0.4633	7.499	43.2432	.
Cancer irroratus zoea	0.6365	0.3366	5.656	45.9459	.
Gobidae	0.6100	0.3155	4.296	48.6486	.
Gobiosoma bosci	0.5914	0.2590	3.791	40.5405	.
Other Bivalves	0.5433	0.2720	4.296	56.7568	.
Polychaeta	0.4279	0.2401	2.741	29.7297	.
All Bivalves	0.4232	.	0.423	2.7027	.
Squilla (empusa?) protozoa	0.3903	.	0.390	2.7027	.
Metamysidopsis	0.2972	0.0973	1.214	40.5405	.
Portunidae zoea	0.2811	0.1742	1.314	18.9189	.
Lucifer Faxoni	0.2759	0.1399	0.910	18.9189	.
Polychaeta	0.2540	.	0.254	2.7027	.
Magelonidae	0.2459	0.1114	0.673	16.2162	.
Acetes caroliniae	0.2451	0.0774	1.110	37.8378	.
Alpheus heterochaelis	0.2416	0.0697	0.818	35.1351	.
Cissodactylus mellitae zoea	0.2413	0.1529	1.440	24.3243	.
Emerita talpoida	0.2068	0.0970	0.313	8.1081	.
Hemidactylus hertzi	0.1742	0.0687	0.565	21.6216	.
Hypoblenius hertzi	0.1604	0.0686	0.503	18.9189	.
Hysidopsis bigelowi	0.1461	0.0965	1.490	40.5405	.
Hippolyte pleuracantha	0.1440	0.1111	0.477	10.8108	.
Lualipes quadripennis zoea	0.1437	0.0567	0.239	8.1081	.
Naushonia crangonoides	0.1398	0.0904	0.478	13.5135	.
Phoronida	0.1347	0.0938	0.770	21.6216	.
Palaeomonidae palaeomoninae	0.1245	0.0959	0.326	8.1081	.
Polychaeta	0.1225	0.0645	0.189	5.4054	.
Paraprionospio spp	0.1203	0.0325	0.340	35.1351	.
Callinectes sp megalopa	0.1203	0.0588	0.274	10.8108	.
bivalve d	0.1203	0.0293	0.333	40.5405	.
Polyonyx gibbesi	0.0963	0.0250	0.121	5.4054	.
Polychaeta	0.0891	0.0375	0.215	13.5135	.
Squilla Antizoea	0.0690	.	0.069	2.7027	.
Libinia spp zoea	.	.	.	.	.
Polychaeta	.	.	.	.	.
Nephtys sp	.	.	.	.	.
Bohidae egg	.	.	.	.	.
Trinectes maculatus	.	.	.	.	.

Table A1. (Continued)

		TOW TYPE=3		STATION=4			
NAPE		MMNABUN	SEMNABUN	MXNABUN	POCCJR	PCOVER	
Gobiesucidae	Gobiosox strumosus	0.0662500	0.0406750	0.106925	5.4054	.	
Lepidopa websteri		0.0658062	0.0558004	0.233125	10.8108	.	
domantella dissimilis		0.0631000	.	0.063100	2.7027	.	
Cancer #2 zoea		0.0551667	0.0345666	0.124100	8.1081	.	
penaeid shrimp		0.0539750	.	0.053975	2.7027	.	
Amodytidae	Amodytes hexapterus	0.0538450	0.0312913	0.163925	13.5135	.	
Polychaeta	Trochophores & Nectochaetes	0.0495500	0.0311248	0.142275	10.8108	.	
Alpheus normanni		0.0452187	0.0107825	0.067600	10.8108	.	
Sciaenidae spp		0.0426625	0.0260375	0.068700	5.4054	.	
Polychaeta	Autolytus spp	0.0399000	0.0112883	0.115050	29.7297	.	
Sciaenidae	Microgogonius undulatus	0.0366000	.	0.036600	2.7027	.	
Libinia cubia Megalopa		0.0363875	0.0250875	0.061475	5.4054	.	
Portunus sp zoea		0.0357250	0.0091624	0.045700	8.1081	.	
Ocypode sp zoea		0.0314250	0.0143296	0.059625	8.1081	.	
Shrimp 6		0.0269750	.	0.026975	2.7027	.	
Anadara spp		0.0251750	.	0.025175	2.7027	.	
Sciaenidae	Cynocion regalis	0.0226875	0.0035375	0.026225	5.4054	.	
Bothidae	Scophthalmus aquasus	0.0215000	0.0135889	0.061850	10.8108	.	
Sciaenidae	Leiostomus xanthurus	0.0173750	.	0.017375	2.7027	.	
Unidentifiable fish		0.0153625	0.0063375	0.021700	5.4054	.	
Syngnathidae	Hippocampus eratus	0.0153500	.	0.015350	2.7027	.	
Tetraodontidae	Sphaeroides maculatus	0.0123000	.	0.012300	2.7027	.	
Bothidae	Paralichthys dentatus	0.0108500	0.0076750	0.018525	5.4054	.	
Clupeidae	Brevoortia tyrannus	0.0107875	0.0044125	0.015200	5.4054	.	
Syngnathidae	Syngnathus fuscus	0.0097875	0.0010614	0.012200	10.8108	.	
Polychaeta	Goniadella gracilis	0.0093250	.	0.009325	2.7027	.	
Polychaeta	Scolecipis sp	0.0093250	.	0.009325	2.7027	.	
Echinodermata		0.0086500	.	0.008650	2.7027	.	
Megalopa A		0.0072500	.	0.007250	2.7027	.	

Table A1. (Continued)

	TQM TYPE=3		STATION=5		
NAME	MNMNABUN	SEMNAUN	MXMNABUN	POCCJR	PCOVER
Neomysis americana	25.0239	12.6405	428.289	97.2973	29.7297
Upogebia affinis	15.3248	6.1131	121.581	64.8649	18.9189
Engraulidae egg	14.7099	6.2655	116.553	51.3514	18.9189
Xanthid Crabs	9.9917	4.6581	118.260	72.9730	13.5135
Pinnotheres spp	2.6097	0.8331	11.247	54.0541	5.4054
Gastropods	2.2766	0.9515	27.356	78.3784	2.7027
Crangon septemspinosa	1.9072	0.5467	11.526	83.7838	2.7027
Uca spp	1.8893	0.8454	14.265	45.9459	2.7027
All Fisheggs	1.7025	0.6272	10.303	67.5676	2.7027
Pinnotheres zoea	1.6911	1.6531	3.344	5.4054	.
Sciaenidae egg	1.6392	0.6255	9.470	54.0541	.
Gyridae limicola	1.4098	0.3144	5.729	54.0541	.
Gobiosoma bosci	1.2403	0.5441	10.183	56.7568	2.7027
Pinnixa spp	1.0793	0.3011	5.080	59.4595	.
Other Fish Eggs	0.8051	0.6259	6.957	29.7297	.
Palaeomonetes spp	0.7737	0.8051	5.941	62.1622	.
Anchoa mitchelli	0.7896	0.2428	3.664	45.9459	.
Callinectes sp zoea	0.6101	0.4021	12.973	86.4865	.
Spionidae	0.4650	0.1239	2.873	67.5676	.
Pagurid Crabs	0.4447	0.1465	1.733	40.5405	.
Callinassa spp	0.3824	0.0374	0.420	5.4054	.
Ocyropsid sp zoea	0.3348	0.1016	1.302	37.8378	.
Libinia spp zoea	0.2973	0.1239	1.952	45.9459	.
Terebellidae spp	0.2803	0.1469	1.861	40.5405	.
Emerita talpoida	0.2498	0.0841	1.515	64.8649	.
Other Bivalves	0.2424	0.0819	1.539	67.5676	.
All Bivalves	0.2256	0.0468	0.704	48.6486	.
Eucercaria praeflongus	0.2205	0.0754	1.142	40.5405	.
Hypsoblennius hentzi	0.2158	0.1174	1.587	37.8378	.
Autolytus spp	0.1699	0.0958	0.726	21.6216	.
Magelonidae	0.1598	0.0654	1.471	59.4595	.
Larvacea	0.1465	0.1072	0.465	10.8108	.
Acetes caroliniae	0.1425	0.0776	0.279	8.1081	.
Gobiosocidae	0.1338	0.0494	0.303	13.5135	.
Alpheus normanni	0.1254	0.0526	0.391	18.9189	.
Libinia dubia Megalopa	0.0959	0.0324	0.346	27.0270	.
Physidopsis bigelowi	0.0933	0.0638	0.348	13.5135	.
Dissoedactylus mellittae zoea	0.0909	.	0.091	2.7027	.
Lepidonotus sublevis	0.0880	0.0251	0.254	35.1351	.
Callinectes sp megalopa	0.0842	0.0307	0.381	37.8378	.
Lucifer Faxoni	0.0806	0.0309	0.305	29.7297	.
Cancer irroratus zoea	0.0684	0.0229	0.114	10.8108	.
Downmanella clissimilis	0.0683	.	0.068	2.7027	.
Metamysicopsis	0.0645	0.0335	0.476	37.8378	.
Nereidae	0.0641	.	0.064	2.7027	.
Shrimp n	0.0565	0.0346	0.160	10.8108	.
Polyonyx gibbesi	0.0522	0.0295	0.167	13.5135	.
Squillid Antizoea	0.0519	0.0316	0.202	16.2162	.
Phoronida	0.0469	0.0215	0.167	18.9189	.
Squilla (empusa?) protozoa	0.0447	.	0.045	2.7027	.
Portunid crab	0.0443	.	0.044	2.7027	.
Libinia emarginata Megalopa	0.0429	0.0252	0.092	8.1081	.
Synbranchidae Hippocampus eratus	0.0406	0.0209	0.182	21.621	.
Palaeomonidae palaeomoninae					

Table A1. (Continued)

		TUN TYPE=3		STATION=5			
NAPE		MNMNABUN	SEMNABUN	MXMNABUN	POCCUR	PCOVER	
Naushonia crangonoides		0.0394312	0.0253321	0.113650	10.8108	.	
Crustacean 2		0.0344750	0.0252250	0.059700	5.4054	.	
Gvalipes zoea		0.0318437	0.0233105	0.101575	10.8108	.	
Ammodytes hexapterus		0.0305917	0.0218946	0.073850	8.1081	.	
Scophthalmus aquasus		0.0301300	0.0184363	0.103600	13.5135	.	
Bivalve B		0.0271875	0.0025375	0.029725	5.4054	.	
Gvalipes quadulpensis zoea		0.0269708	0.0093452	0.055775	16.2162	.	
Atherinidae	Menidia menidia	0.0223500	.	0.022350	2.7027	.	
Cancer sp megalopa		0.0216500	.	0.021650	2.7027	.	
Syngnathidae	Syngnathus fuscus	0.0194500	0.0037902	0.045900	32.4324	.	
Polychaeta	Trochophores & Nectochaetes	0.0154917	0.0108364	0.037150	8.1081	.	
Polychaeta	Paraprionospio spp	0.0149000	.	0.014900	2.7027	.	
Lepidopa websteri		0.0142250	0.0069500	0.021175	5.4054	.	
Portunus sp zoea		0.0135000	.	0.013500	2.7027	.	
Hippolyte pleuracantha		0.0131625	0.0038374	0.020450	10.8108	.	
Tetraodontidae	Sphaeroides maculatus	0.0125000	.	0.012500	2.7027	.	
Bothidae egg		0.0116958	0.0029441	0.021650	16.2162	.	
Anadara spp		0.0103250	.	0.010325	2.7027	.	
Portunidae zoea		0.0101500	.	0.010150	2.7027	.	
Mysid		0.0086500	.	0.008650	2.7027	.	
Bothidae	Etropus microstomus	0.0074250	.	0.007425	2.7027	.	
Megalopa A		0.0053500	.	0.005350	2.7027	.	
Stomatelidae	Peprilus triacanthus	0.0050750	.	0.005075	2.7027	.	
Barnacle cyprid		0.0032750	.	0.003275	2.7027	.	

Table A1. (Continued)

NAME	MMNABUN	SEMNABUN	MYMNABUN	POCCUR	PCOVER
Upogebia affinis	29.9866	18.1722	440.558	66.6667	27.7778
Neomysis americana	7.2032	3.8023	92.606	91.6667	11.1111
Xanthid Crabs	5.1237	2.1526	50.698	66.6667	8.3333
Engraulidae egg	4.7585	1.2398	20.129	52.7778	8.3333
Pinnixa spp	3.6145	3.0722	61.869	55.5556	2.7778
Gastropods	3.4587	2.6847	75.728	77.7778	2.7778
Pinnotheres spp	2.2866	1.1167	16.700	44.4444	2.7778
Oyridies limicola	2.2641	0.5956	8.932	55.5556	.
Pinnotheres zoea	1.7597	1.4619	4.665	8.3333	.
All Fish eggs	1.5744	0.6002	10.646	50.0000	2.7778
Sciaenidae egg	1.5401	0.5488	8.353	41.6667	.
Uca spp	1.4439	0.9283	18.540	55.5556	2.7778
Gobiidae	0.9177	0.3436	6.032	55.5556	.
Gobiosoma bosci	0.8341	0.4176	11.025	80.5556	2.7778
Polychaeta	0.7506	.	0.751	2.7778	.
Acetes caroliniae	0.6919	0.3684	8.276	61.1111	.
Palaemonetes spp	0.5575	0.2499	2.293	25.0000	.
Other Fish Eggs	0.4359	0.1710	2.879	47.2222	.
Engraulidae	0.4239	0.1610	0.875	13.8889	.
Alpheus normanni	0.3370	0.1346	3.640	75.0000	.
Crangon septemspinosa	0.3305	0.2790	2.554	25.0000	.
Palaemonidae palaemoninae	0.3226	0.0884	1.045	38.8889	.
Callinectes sp zoea	0.2463	0.0786	0.785	30.5556	.
Polychaeta	0.2325	0.0773	0.895	33.3333	.
Callinassa spp	0.2072	0.1291	1.086	22.2222	.
Callinectes sp megalopa	0.1980	0.1453	0.923	16.6667	.
Cancer irroratus zoea	0.1794	0.1101	0.503	11.1111	.
Dissodactylus mellitae zoea	0.1782	0.0843	0.785	33.3333	.
Bleniidae	0.1583	0.0659	1.063	47.2222	.
Hypsoblennius hentzi	0.1520	0.0332	0.534	61.1111	.
Euceramus praelongus	0.1417	0.0309	0.333	30.5556	.
Pagurid Crabs	0.1260	0.1163	0.359	8.3333	.
Libinia spp zoea	0.1152	0.0150	0.130	5.5556	.
Amodytidae	0.1119	.	0.112	2.7778	.
Gobiesocidae	0.1004	.	0.100	2.7778	.
Gobiosox strumosus	0.0750	.	0.075	2.7778	.
Libinia emarginata Megalopa	0.0743	0.0190	0.391	58.3333	.
Libinia sp Juvenile	0.0735	0.0570	0.187	8.3333	.
Bothidae	0.0714	0.0365	0.379	27.7778	.
Scophthalmus aquasus	0.0658	0.0258	0.334	41.6667	.
Bothidae egg	0.0557	0.0389	0.095	5.5556	.
Nereidae	0.0489	0.0329	0.275	22.2222	.
Autolytus spp	0.0475	0.0134	0.297	66.6667	.
Autolytus spp	0.0410	.	0.041	2.7778	.
Unidentified fish	0.0401	0.0184	0.075	8.3333	.
Polyonyx glabres	0.0352	0.0089	0.066	19.4444	.
Uvalipes quaddupensis zoea	0.0345	0.0256	0.085	8.3333	.
Anguillidae	0.0336	0.0216	0.141	16.6667	.
Emerita talpoida	0.0336	.	0.034	2.7778	.
Polychaeta	0.0336	.	0.034	2.7778	.
Mageloniidae	0.0336	.	0.034	2.7778	.
Polychaeta	0.0325	0.0082	0.170	63.8839	.
Sabellaria vulgaris	0.0304	0.0152	0.069	11.1111	.
Other Bivalves	0.0292	0.0075	0.062	19.4444	.
Shrimp	0.0268	0.0087	0.053	11.1111	.
Pygidopsis bigelowi	.	.	.	.	.
Squilla (tempus?) protozoa	.	.	.	.	.

Table A1. (Continued)

		TOW TYPE=3		STATION=6			
NAME		MMNABUN	SEMNABUN	MXNABUN	POCCUR	PCOVER	
Bowmanietella dissimilis	:	0.0253250	.	0.0253250	2.7778	.	
Libinia dubia Megalopa		0.0245607	0.0099537	0.0814500	19.4444	.	
Atherinidae	Menidia menidia	0.0230667	0.0146602	0.0521250	8.3333	.	
Polychaeta	Trochophores & Nectochaetes	0.0183250	0.0071079	0.0321750	8.3333	.	
Leptochela serratorbita		0.0180000	.	0.0180000	2.7778	.	
Lucifer Faxoni		0.0176432	0.0034224	0.0363000	30.5556	.	
Metamysidopsis		0.0167750	.	0.0167750	2.7778	.	
Soleidae	Trinectes maculatus	0.0161000	.	0.0161000	2.7778	.	
Syngnathidae	Syngnathus fuscus	0.0157062	0.0034715	0.0392250	33.3333	.	
Hippolyte pleuracantha		0.0143437	0.0027718	0.0185500	11.1111	.	
Sciaenidae	Leiostomus xanthurus	0.0136750	0.0042000	0.0178750	5.5556	.	
Polychaete E		0.0132500	.	0.0132500	2.7778	.	
Bothidae	Etropus microstomus	0.0130125	0.0032625	0.0162750	5.5556	.	
Lepidopa westeri		0.0126625	0.0079875	0.0206500	5.5556	.	
Squilla Antizoea		0.0124500	0.0063000	0.0187500	5.5556	.	
Naushonia crangonoides		0.0093750	.	0.0093750	2.7778	.	
Tetraodontidae	Sphaeroides maculatus	0.0085500	.	0.0085500	2.7778	.	
Phoronida		0.0080000	.	0.0080000	2.7778	.	
Polychaeta	Cirratulidae	0.0075000	.	0.0075000	2.7778	.	
Penaeid shrimp		0.0073875	0.0018875	0.0092750	5.5556	.	
Portunus sp zoea		0.0067250	.	0.0067250	2.7778	.	
Sciaenidae	Microgobionus undulatus	0.0065250	.	0.0065250	2.7778	.	
Syngnathidae	Hippocampus eratus	0.0062000	.	0.0062000	2.7778	.	
Portunidae zoea		0.0046750	.	0.0046750	2.7778	.	
Stomatelidae	Peprilus triacanthus	0.0040875	0.0005875	0.0046750	5.5556	.	



Table A1. (Continued)

		TUM TYPE=3		STATION=7			
NAME		MMNABUN	SEMABUN	MXMABUN	POCCUR	PCOVER	
Polychaeta	Spionidae	16.6187	16.3170	424.533	72.2222	2.77778	
Uca spp		8.0142	5.1589	98.942	52.7778	8.33333	
Crangon septemspinosa		5.0586	4.9544	148.735	83.3333	2.77778	
Engraulidae egg		4.8311	2.1422	37.229	52.7778	8.33333	
Upogebia affinis		3.6451	0.9668	13.101	55.5556	8.33333	
Neomysis americana		3.4903	1.2938	33.509	86.1111	8.33333	
Gyrides limicola		3.0895	0.8160	13.628	55.5556	2.77778	
Xanthid Crabs		2.5694	0.9511	19.516	63.8889	2.77778	
Gobiidae	Gobiosoma bosci	2.4423	0.8344	18.324	61.1111	2.77778	
Other Fish Eggs		1.9366	0.9439	9.291	27.7778	.	
Pinnotheres spp		1.5202	0.5854	9.873	47.2222	.	
Polychaeta	Unknown polychaete	1.3688	.	1.369	2.7778	.	
All Fisheggs		1.3005	0.5306	9.757	55.5556	.	
Hippolyte pleuracantha		0.9262	.	0.926	2.7778	.	
Larvacea		0.7593	0.7039	9.909	38.8889	.	
Callinectes sp zoea		0.7173	0.2294	2.999	38.8889	.	
Palaeomonetes spp		0.5881	0.1402	2.753	61.1111	.	
Pinnotheres zoea		0.5313	0.3536	1.943	13.8889	.	
Naushonia crangonoides		0.3969	0.3474	1.438	11.1111	.	
Sciaenidae egg		0.3897	0.1176	1.431	47.2222	.	
Gastropods		0.2674	0.0812	1.625	66.6667	.	
Engraulidae	Anchoa mitchelli	0.2349	0.0550	0.894	55.5556	.	
Penaeid Shrimp		0.2202	.	0.220	2.7778	.	
Pinnixa spp		0.2080	0.0549	0.666	50.0000	.	
Alpheus normanni		0.2036	0.1003	0.564	13.8889	.	
Myxidopsis bigelowi		0.1873	0.1307	0.708	13.8889	.	
Polychaeta	Nereidae	0.1549	0.1169	1.537	36.1111	.	
Unidentifiable fish		0.1465	.	0.147	2.7778	.	
Polychaeta	Terebellidae spp	0.1294	0.0617	0.554	27.7778	.	
Alpheus heterochaelis		0.1273	.	0.127	2.7778	.	
Polychaeta	Trochophores & Nectochaetes	0.1195	0.1165	0.236	5.5556	.	
Gobiesocidae	Gobiosox strumosus	0.1146	0.0995	0.413	11.1111	.	
Cancer irroratus zoea		0.1065	0.0793	0.659	22.2222	.	
Bivalve B		0.1035	0.0859	0.361	11.1111	.	
Libinia spp zoea		0.0942	0.0346	0.236	19.4444	.	
Soleidae	Trinectes maculatus	0.0897	0.0610	0.212	8.3333	.	
Ovalipes quadulipensis zoea		0.0880	0.0633	0.401	16.6667	.	
Portunidae zoea		0.0814	.	0.081	2.7778	.	
Hemiliidae	Hypsoblennius hentzi	0.0754	0.0222	0.269	33.3333	.	
All Bivalves		0.0743	0.0218	0.361	50.0000	.	
Pagurid Crabs		0.0729	0.0155	0.182	47.2222	.	
Gvalipes zoea		0.0717	0.0286	0.102	8.3333	.	
Libinia dubia Megalopa		0.0713	0.0297	0.144	13.8889	.	
Callinassa spp		0.0665	0.0436	0.361	22.2222	.	
Other Bivalves		0.0612	0.0176	0.205	38.8889	.	
Shrimp b		0.0527	.	0.053	2.7778	.	
Polychaeta	Syllides verilii	0.0514	.	0.051	2.7778	.	
Ocyropsid sp zoea		0.0485	0.0338	0.116	8.3333	.	
Echinodermata		0.0462	.	0.046	2.7778	.	
Acetes caroliniae		0.0446	0.0205	0.065	5.5556	.	
Squilla (sepusa?) protozoa		0.0426	0.0318	0.106	4.3333	.	
Lucifer Faxoni		0.0362	0.0095	0.078	19.4444	.	
Polychaeta	Sabellidae spp	0.0361	.	0.036	2.7778	.	
Phoronida		0.0344	.	0.034	2.7778	.	

Table A1. (Continued)

		TOW TYPE=3		STATION=7			
NAME		MMNABUN	SEMABUN	MXMABUN	POCCUR	PCOVER	
Polychaeta	Magelonidae	0.0343125	0.0235668	0.104275	11.1111	.	
Anadara spp		0.0339000	0.0129500	0.046850	5.5556	.	
Palaeomonidae	palaeomoninae	0.0335727	0.0081714	0.095675	30.5556	.	
Dissodactylus	melittae zoea	0.0283167	0.0045879	0.033775	8.3333	.	
Emerita	talpoida	0.0265375	0.0129724	0.087375	16.6667	.	
Callinectes sp	megalopa	0.0263083	0.0069565	0.033575	8.3333	.	
Synynathidae	Synynathus fuscus	0.0263071	0.0144560	0.111850	19.4444	.	
Polychaeta	Nereis succinea	0.0225750	.	0.022575	2.7778	.	
Callinectes spp	Juvenile	0.0219750	0.0117000	0.033675	5.5556	.	
Euceramus	praelongus	0.0216025	0.0047230	0.043275	27.7778	.	
Polychaeta	Autolytus spp	0.0187062	0.0027892	0.029750	22.2222	.	
Crustacean 2		0.0163150	0.0036062	0.026825	13.8889	.	
Polychaeta	Sabellaria vulgaris	0.0112500	.	0.011250	2.7778	.	
Polychaeta	Streblospio benedicti	0.0102750	.	0.010275	2.7778	.	
Polychaete 19		0.0102750	.	0.010275	2.7778	.	
Polyonyx gibbesi		0.0097250	.	0.009725	2.7778	.	
Bothidae egg		0.0091500	0.0056000	0.014750	5.5556	.	
Polychaeta	Tomopteris spp	0.0088500	.	0.008850	2.7778	.	
Amodytidae	Amodytes hexapterus	0.0079833	0.0021237	0.010400	8.3333	.	
Bowmanella	dissimilis	0.0062000	.	0.006200	2.7778	.	
Bothidae	Scophthalmus aquasus	0.0056250	.	0.005625	2.7778	.	
Sciaenidae	Cynoscion regalis	0.0056250	.	0.005625	2.7778	.	

Table A1. (Continued)

		TOW TYPE=2		STATION=8			
NAME		MNMNABUN	SEMNABUN	MXMNABUN	POCCUR	PCOVER	
Polychaeta	Terebellidae spp	0.0112625	0.00236715	0.0171500	17.3913	.	
Alpheus	normanni	0.0108500	0.00920000	0.0200500	8.6957	.	
Atherinidae	Menidia menidia	0.0100950	0.00582987	0.0331500	21.7391	.	
Pomatomidae	Pomatomus saltatrix	0.0099750	.	0.0099750	4.3478	.	
Gvalipes	quadulpcnsis megalopa	0.0093750	.	0.0093750	4.3478	.	
Shrimp	6	0.0077000	.	0.0077000	4.3478	.	
Callinectes	spp Juvenile	0.0077000	.	0.0077000	4.3478	.	
Gvalipes	zoea	0.0074250	0.00490000	0.0123250	8.6957	.	
Stromateidae	Peprilus triacanthus	0.0073500	0.00530000	0.0126500	8.6957	.	
Portunidae	zoea	0.0071000	0.00465000	0.0117500	8.6957	.	
Tetraodontidae	Sphaeroides maculatus	0.0040000	.	0.0040000	4.3478	.	
Tellinidae	spp	0.0040000	.	0.0040000	4.3478	.	
dothidae	Scophthalmus aquasus	0.0036750	.	0.0036750	4.3478	.	
Polychaeta	Trochophores & Nectochaetes	0.0027000	0.00155000	0.0042500	8.6957	.	
Hippolyte	pleuracantha	0.0026500	.	0.0026500	4.3478	.	
Sciaenidae	Leiostomus xanthurus	0.0026250	.	0.0026250	4.3478	.	
Sciaenidae	Cynoscion regalis	0.0025750	.	0.0025750	4.3478	.	
Fish - unknown		0.0023500	.	0.0023500	4.3478	.	
Lepidopa	websteri	0.0022500	.	0.0022500	4.3478	.	
Megalopa	E	0.0020000	.	0.0020000	4.3478	.	
Gobiidae	Gobiosoma bosci	0.0013500	.	0.0013500	4.3478	.	
Anguillidae	Anguilla rostrata	0.0011500	.	0.0011500	4.3478	.	

Table A1. (Continued)

NAME	HMNABUN	SEMABUN	HXMNABUN	POCCUR	PCOVER
Callinectes sp zoea	34.6761	16.3727	133.485	34.7826	26.0870
Engraulidae egg	22.2662	10.2152	94.435	39.1304	21.7391
Uca spp	16.0802	13.2516	159.674	52.1739	8.6957
Other Fish Eggs	8.8120	5.7583	38.968	34.7826	8.6957
All Fish eggs	7.6264	2.9647	44.562	86.9565	21.7391
Upogorgia affinis	7.3701	4.1146	35.058	43.4783	8.6957
Sciaenidae egg	5.9456	2.4827	30.900	56.5217	13.0435
Crangon septemspinosa	3.2964	1.1954	19.954	95.6522	8.6957
Neomysis americana	3.2674	1.7284	24.594	73.9130	13.0435
Callinassa spp	3.1351	1.5986	14.609	47.8261	4.3478
Pinnixa spp	2.6314	1.7699	23.427	56.5217	4.3478
Pagurid Crabs	2.0543	1.1422	16.298	65.2174	4.3478
Gastropods	1.9613	0.9735	13.922	60.8696	4.3478
Larvacea	1.9582	0.6706	9.023	60.8696	.
Lucifer Faxoni	1.6786	0.8213	6.079	39.1304	.
Pinnotheres spp	1.6397	1.0846	6.825	26.0870	.
Ovalipes quadripennis zoea	1.4349	0.8389	9.425	47.8261	.
Polychaeta	1.2658	0.5117	10.709	95.6522	4.3478
Spionidae	0.8948	0.4797	4.601	43.4783	.
Xanthid Crabs	0.7380	0.6918	1.430	8.6957	.
Megalopa D	0.6464	0.5527	4.498	34.7826	.
Polychaeta	0.5831	0.3462	4.831	60.8696	.
Nereidae	0.5265	0.2352	1.869	39.1304	.
Bothidae egg	0.4595	.	0.460	4.3478	.
Polychaeta	0.4331	0.1276	2.094	86.9565	.
Paraprionospio spp	0.4245	0.2801	3.106	47.8261	.
Anchoa mitchelli	0.4180	0.1713	1.611	52.1739	.
Euceramus praelongus	0.3859	.	0.386	4.3478	.
Alpheus normanni	0.3700	0.1545	1.625	47.8261	.
Mysidopsis bigelowi	0.3542	0.1406	1.022	34.7826	.
Bivalve B	0.3294	0.2273	1.692	30.4348	.
Squilla (empusa?) protozoa	0.2949	0.0996	1.603	82.6087	.
Other Bivalves	0.2892	0.1812	1.177	26.0870	.
Amodytidae	0.2810	0.2045	0.486	8.6957	.
Amodytes hexapterus	0.2781	0.1369	1.020	34.7826	.
Gvalipes zoea	0.2402	0.1169	0.775	26.0870	.
Palaeomonetes spp	0.2374	0.2195	0.457	8.6957	.
Acetes caroliniae	0.2220	0.1336	1.001	30.4348	.
Pinnotheres zoea	0.2164	0.1866	0.403	8.6957	.
Ogyrides limicola	0.2092	0.0684	0.700	47.8261	.
Bommanella dissimilis	0.1938	.	0.194	4.3478	.
Cancer irroratus zoea	0.1928	0.1083	0.438	17.3913	.
Portunidae zoea	0.1913	0.0693	0.729	47.8261	.
Gobiosoma bosci	0.1759	.	0.176	4.3478	.
Emerita talpoida	0.1685	0.0740	0.448	21.7391	.
Tellinidae spp	0.1519	0.0644	0.144	21.7391	.
Polychaeta	0.1415	0.0605	0.366	26.0870	.
Lepidopa websteri	0.1364	0.0970	0.427	17.3913	.
Callinectes sp megalopa	0.1208	0.0361	0.231	21.7391	.
Polychaeta	0.1107	0.0740	0.185	8.6957	.
Trochophores & Nectochaetes	0.1042	0.0946	0.293	13.0435	.
Squillid Antizoea	0.1002	.	0.100	4.3478	.
Libinia dubia Megalopa	0.0964	.	0.096	4.3478	.
Polyonyx gibbesi	.	.	.	.	.
Sciaenidae	.	.	.	.	.
Cynucton regalis	.	.	.	.	.
Megalopa D	.	.	.	.	.

Table A1. (Continued)

NAME	TOW	TYPE=3	STATION=3	MNMNABUN	SEMNABUN	MXMNABUN	POCCUR	PCOVER
Unidentifiable fish								
Naushonia crangonoides				0.0731000		0.073100	4.3478	.
Regalopa A				0.0560393	0.0244558	0.194900	30.4348	.
Libinia spc zoea				0.0540417	0.0245538	0.096875	13.0435	.
Spisula solidissima				0.0506300	0.0180614	0.102325	21.7391	.
Bothidae				0.0502500	.	0.050250	4.3478	.
Scophthalmus aquasus				0.0473375	0.0128337	0.105625	26.0870	.
Polychaeta Autolytus spp				0.0422750	0.0127250	0.055000	8.6957	.
Persephone punctata				0.0421500	.	0.042150	4.3478	.
Polychaeta Onuphis eremita				0.0344750	.	0.034475	4.3478	.
Polychaeta Tomopteris spp				0.0336500	.	0.033650	4.3478	.
Clupeidae Brevoortia tyrannus				0.0321375	0.0004125	0.032550	8.6957	.
Triglidae Prionotus carolinus				0.0306250	.	0.030625	4.3478	.
Cynoglossidae Symphurus plagiata				0.0269625	0.0076625	0.034625	8.6957	.
Phoronida				0.0242600	0.0129368	0.075225	21.7391	.
Nemertine Pilidium larva				0.0240250	.	0.024025	4.3478	.
Pensaeid shrimp				0.0239750	.	0.023975	4.3478	.
Fish - unknown				0.0233750	.	0.023375	4.3478	.
Ophidiidae Rissola spp				0.0231250	.	0.023125	4.3478	.
Hippolyte pleuracantha				0.0206875	0.0044875	0.025175	8.6957	.
Blenniidae Hypsoblenius hentzi				0.0185833	0.0044027	0.024300	13.0435	.
Syngnathidae Hippocampus eratus				0.0120250	.	0.012025	4.3478	.
Syngnathidae Syngnathus fuscus				0.0113250	.	0.011525	4.3478	.
Cancer sp megalopa				0.0102750	.	0.010275	4.3478	.
Gvalipes quadripensis megalopa				0.0099000	.	0.009900	4.3478	.
Shrimp 7				0.0091250	.	0.009125	4.3478	.
Anguillidae Anguilla rostrata				0.0090250	.	0.009025	4.3478	.
Bothidae Paralichthys dentatus				0.0088250	0.0013250	0.010150	8.6957	.
Polychaete F				0.0047250	.	0.004725	4.3478	.
Echinodermata				0.0019250	.	0.001925	4.3478	.

Table A1. (Continued)

TOW TYPE=2 STATION=9

NAME	MXMNABUN	SEMABUN	MXMNABUN	POCCUR	PCOVER
Callinectes sp zoea	101.539	54.1859	400.033	36.3636	18.1818
Engraulidae egg	47.021	17.6953	138.031	50.0000	27.2727
Other Fish eggs	24.010	23.7218	95.174	18.1818	4.5455
All Fish eggs	17.180	9.2483	130.681	77.2727	18.1818
Scleridae egg	13.519	9.3697	130.681	63.6364	13.6364
Crangon septemspinosa	6.629	5.2751	89.133	77.2727	9.0909
Uca spp	4.369	1.9474	14.832	36.3636	4.5455
Larvacea	2.744	1.9043	21.284	50.0000	4.5455
Neomysis americana	2.031	1.8011	21.728	54.5455	4.5455
Myxidopsis bigelowi	1.737	1.6474	6.675	18.1818	4.5455
Rothidae egg	1.351	0.8020	3.742	22.7273	4.5455
Polychaeta	1.031	0.6400	3.163	27.2727	4.5455
Upogebia affinis	0.961	0.3686	2.742	36.3636	4.5455
Callinectes sp megalopa	0.574	0.3436	2.467	31.8182	4.5455
Ocyropsis sp zoea	0.478	0.3950	1.268	13.6364	4.5455
Squilla Antiozoea	0.441	0.3581	2.575	31.8182	4.5455
Libinia spp zoea	0.370	0.3089	1.269	18.1818	4.5455
Gastropods	0.329	0.1931	2.070	54.5455	4.5455
Squilla (tempus?) protozoea	0.327	0.3012	0.928	13.6364	4.5455
Gyrrides limicola	0.308	0.1694	0.308	4.5455	4.5455
Ovalipes quadripennis zoea	0.293	0.1489	1.425	36.3636	4.5455
Pinnixa spp	0.245	0.1673	1.493	45.4545	4.5455
Lucifer Faxonii	0.216	0.1107	0.879	22.7273	4.5455
Polychaeta	0.192	0.1107	0.469	18.1818	4.5455
Palaemonetes spp	0.151	0.1293	1.052	36.3636	4.5455
Bowmanella dissimilis	0.149	0.0466	0.149	4.5455	4.5455
Emerita talpoida	0.123	0.0607	0.310	31.8182	4.5455
Polychaeta	0.113	0.0354	0.251	77.2727	4.5455
Cancer irroratus zoea	0.111	0.0364	0.372	31.8182	4.5455
Pagurid Crabs	0.108	0.0827	0.849	54.5455	4.5455
All Bivalves	0.107	0.0828	0.849	45.4545	4.5455
Engraulidae	0.106	0.0891	0.817	40.9091	4.5455
Cancer #2 zoea	0.103	0.0985	0.202	9.0909	4.5455
Callinassa spp	0.098	0.0330	0.286	40.9091	4.5455
Xanthid Crabs	0.092	0.0434	0.336	36.3636	4.5455
Fish - unknown	0.078	0.0507	0.078	4.5455	4.5455
Engraulidae	0.070	0.0507	0.170	13.6364	4.5455
Atherinidae	0.070	0.0420	0.346	36.3636	4.5455
Megalopa A	0.058	0.0150	0.075	13.6364	4.5455
Eucetis praeionquus	0.056	0.0477	0.342	31.8182	4.5455
Acetes caroliniae	0.043	0.0346	0.078	9.0909	4.5455
Gobidae	0.042	0.042	0.042	4.5455	4.5455
Engraulidae fry	0.025	0.0061	0.025	4.5455	4.5455
Penaeid shrimp	0.013	0.017	0.024	9.0909	4.5455
Phoronida	0.017	0.0057	0.021	9.0909	4.5455
Leptodopa websteri	0.016	0.0001	0.013	9.0909	4.5455
Pinnotheres spp	0.013	0.0010	0.013	9.0909	4.5455
Botriidae	0.012	0.0010	0.008	4.5455	4.5455
Hippolyte pleuracantha	0.008	0.0010	0.008	4.5455	4.5455
Callinectes spp juvenile	0.008	0.0010	0.008	4.5455	4.5455
Bleniidae	0.006	0.0036	0.008	13.6364	4.5455
Myxid	0.006	0.0036	0.010	9.0909	4.5455
Polychaeta	0.005	0.0036	0.005	4.5455	4.5455
Trachopneustes & Nectochaetes					

Table A1. (Continued)

TOW TYPE=2 STATION=9					
NAME	MMNABUN	SEMABUN	MXMABUN	POCCUR	PCOVER
Naustonia crangonoides	0.00537500	0.00320000	0.00857500	9.0909	.
Polychaeta	0.00477500	.	0.00477500	4.5455	.
Amodytidae	0.00348750	0.00103750	0.00452500	9.0909	.
Polychaeta	0.00332500	0.00068572	0.00460000	13.6364	.
Dissodactylus melitae zoea	0.00325000	.	0.00325000	4.5455	.
Mugil sp	0.00323750	0.00083750	0.00407500	9.0909	.
Pinnotheres zoea	0.00285000	.	0.00285000	4.5455	.
Bivalve B	0.00272500	.	0.00272500	4.5455	.
Lophidae	0.00227500	.	0.00227500	4.5455	.
Synbranchidae	0.00200000	.	0.00200000	4.5455	.
Anthrionidae	0.00200000	.	0.00200000	4.5455	.
Portunid crab	0.00197500	.	0.00197500	4.5455	.
Belonidae	0.00178750	0.00028750	0.00207500	9.0909	.
Tylosurus crocodilis					

Table A1. (Continued)

NAME	MMNABUN	SEMNABUN	MXMNABUN	POCCUR	PCOVER
Engraulidae egg	83.4958	45.5666	542.51	40.000	20.0000
Callinectes sp zoea	78.1447	31.9478	317.43	43.333	20.0000
Sciaenidae egg	73.7996	71.4684	1288.68	60.000	6.6667
All Fishes	61.6954	53.7085	1289.42	80.000	13.3333
Uca spp	32.3703	16.9895	203.61	40.000	16.6667
Other Fish Eggs	29.1758	28.1834	141.87	16.667	3.3333
Larvacea	25.3822	19.9592	397.52	66.667	6.6667
Engraulidae	18.2945	17.4207	140.21	26.667	3.3333
Anchoa mitchelli	12.7698	9.5494	176.10	63.333	6.6667
Pinnixa spp	11.9371	.	11.94	3.333	3.3333
Engraulidae fry	10.2510	9.4654	142.66	50.000	3.3333
Mysidopsis bigelowi	7.5743	2.5360	28.25	50.000	16.6667
Upogebia affinis	6.9767	2.5050	56.63	93.333	23.3333
Crangon septemspinosa	5.5524	2.4480	44.54	63.333	10.0000
Pagurid Crabs	4.3592	1.7717	30.67	76.667	13.3333
Neomysis americana	3.9135	1.1898	7.66	33.333	.
Callinassa spp	2.8796	1.9008	27.01	46.667	3.3333
Xanthid Crabs	1.6372	0.6539	16.45	100.000	6.6667
Polychaeta	1.4842	0.5761	11.33	80.000	3.3333
Gastropods	1.3399	0.7018	2.43	10.000	.
Libinia dubia Megalopa	1.2198	0.7404	3.03	13.333	.
Bowmanella dissimilis	0.9219	0.7528	8.42	36.667	.
Bothidae	0.8512	0.2318	1.79	23.333	.
Scophthalmus aquasus	0.8359	0.0585	0.89	6.667	.
Terebellidae spp	0.8022	0.3752	3.09	26.667	.
Libinia emarginata Megalopa	0.7944	0.6397	3.35	16.667	.
Gobiosoma bosci	0.7764	0.4974	5.01	33.333	.
Pinnotheres spp	0.7253	0.3649	3.09	30.000	.
Trochophores & Nectochaetes	0.7055	0.3179	2.25	26.667	.
Magelonidae	0.6544	0.1660	2.30	70.000	.
Other Bivalves	0.5976	0.1645	2.30	70.000	.
Palaeomonetes spp	0.5441	0.2454	2.34	40.000	.
Lucifer Faxonii	0.5283	0.2134	1.83	33.333	.
Euceramus praelongus	0.5111	0.2165	2.69	43.333	.
Emerita talpoida	0.4951	0.2529	3.27	43.333	.
Atherinidae	0.4948	.	0.49	3.333	.
Menidia menidia	0.4873	0.1317	1.47	46.667	.
Ovalipes quadripennis zoea	0.4844	0.1821	1.82	30.000	.
Ogyrides limicola	0.3943	0.1486	1.88	50.000	.
Polychaeta	0.3938	.	0.39	3.333	.
Nereidae	0.3054	0.2425	0.79	10.000	.
Cancer #2 zoea	0.2898	0.0807	0.54	20.000	.
Etropus microstomus	0.2387	0.1669	0.90	16.667	.
Bothidae	0.2386	0.1490	0.83	16.667	.
Acetes caroliniae	0.2339	0.1129	1.96	56.667	.
Callinectes sp megalopa	0.2128	0.1215	1.39	36.667	.
Bivalve B	0.2024	0.1135	0.85	23.333	.
Cancer irroratus zoea	0.1779	0.0514	0.35	20.000	.
Squilla Antilozoa	0.1501	0.0944	0.89	30.000	.
Squilla (empusa?) protozoa	0.1302	.	0.13	3.333	.
Geryode sp zoea	0.1073	0.0695	0.45	20.000	.
Blennidae	0.1014	0.0287	0.19	20.000	.
Hypsoblennius hentzi	0.0995	0.0540	0.20	20.000	.
Bothidae	.	.	.	.	.
Paralichthys dentatus	.	.	.	.	.
Naushonia crangonoides	.	.	.	.	.
Libinia spp zoea	.	.	.	.	.
Alpheus normanni	.	.	.	.	.



Table A1. (Continued)

		TOW TYPE=3		STATION=9			
NAME		MNMNABUN	SEMNABUN	MXMNABUN	POCCUR	PCOVER	
Gadidae	Urophycis regius	0.0778875	0.0703375	0.148225	6.6667	.	
Phoronida		C.0729833	0.0287050	0.200000	20.0000	.	
Cphidiidae	Rissola spp	0.0587750	.	0.058775	3.3333	.	
Gobiesocidae	Gobiosox strumosus	0.0563750	.	0.056375	3.3333	.	
Persephone punctata		0.0541500	.	0.054150	3.3333	.	
Dissodactylus mellitae zoea		0.0537750	0.0337580	0.120975	10.0000	.	
Ammodontidae	Ammodytes hexapterus	0.0483650	0.0351333	0.188425	16.6667	.	
Syngnathidae	Syngnathus fuscus	0.0397125	0.0323375	0.072050	6.6667	.	
Hippolyte pleuracantha		0.0384312	0.0148125	0.072400	13.3333	.	
Polychaeta	Autolytus spp	0.0321958	0.0114530	0.067675	20.0000	.	
Unidentifiable fish		0.0306750	.	0.030675	3.3333	.	
Leptochela serratorbita		0.0299250	.	0.029925	3.3333	.	
Cancer sp megalopa		0.0246000	0.0166500	0.041250	6.6667	.	
Megalopa A		C.0232125	0.0023875	0.025600	6.6667	.	
Polychaeta	Tomopteris spp	0.0226750	.	0.022675	3.3333	.	
Cynoglossidae	Symphurus plagiatus	0.0173000	0.0075250	0.024825	6.6667	.	
Fish - unknown		0.0169250	.	0.016925	3.3333	.	
Portunus spinicarpus	Megalopa	0.0151500	.	0.015150	3.3333	.	
Penaeid shrimp		0.0137125	0.0009625	0.014675	6.6667	.	
Polychaeta	Syllides veritil	0.0122750	.	0.012275	3.3333	.	
Anguillidae	Anguilla rostrata	0.0106250	.	0.010625	3.3333	.	
Stromateidae	Peprilus triacanthus	0.0067750	.	0.006775	3.3333	.	
Shrimp 7		0.0038250	.	0.003825	3.3333	.	
Svallopes zoea		0.0038250	.	0.003825	3.3333	.	

Table A1. (Continued)

NAME	MMNABUN	SEMNABUN	MXMNABUN	POCCUR	PCOVER
Engraulidae egg	117.304	85.5428	795.399	39.1304	21.7391
Callinectes sp zoea	9.843	4.3378	29.773	30.4348	13.0435
All Fisheggs	9.778	3.6918	57.740	95.6522	21.7391
Sciaenidae egg	7.863	3.8685	57.599	78.2609	13.0435
Other Fish Eggs	7.646	5.2988	40.009	34.7826	8.6957
Polychaeta Syllides verilli	5.908	.	5.908	4.3478	.
Uca spp	2.006	1.5772	14.439	39.1304	4.3478
Neomysis americana	1.752	1.6432	23.086	60.8696	4.3478
Bothidae egg	1.552	0.9316	7.597	34.7826	.
Crangon septemspinosa	1.178	0.8722	14.993	73.9130	4.3478
Polychaeta Magelonidae	0.952	0.8941	3.633	17.3913	.
Lucifer Faxoni	0.446	0.3290	2.039	26.0870	.
Squilla (empusa?) protozoa	0.439	0.2955	1.600	21.7391	.
Upogebia affinis	0.421	0.2708	2.235	34.7826	.
Polychaeta Nereidae	0.406	0.2533	2.500	47.8261	.
Callinectes sp megalopa	0.289	0.2158	1.568	30.4348	.
Gastropods	0.214	0.1145	1.419	52.1739	.
Metamysidopsis	0.202	.	0.202	4.3478	.
Pinnixa spp	0.193	0.0959	0.980	43.4783	.
Callinassa spp	0.188	0.1464	0.915	26.0870	.
Ammodytes hexapterus	0.184	0.1491	0.627	17.3913	.
Larvacea	0.180	0.0899	0.951	47.8261	.
Megalopa A	0.168	0.1135	0.715	26.0870	.
Acetes caroliniae	0.137	0.0707	0.390	26.0870	.
Pinnotheres spp	0.133	0.0476	0.269	21.7391	.
Other Bivalves	0.128	0.0511	0.651	56.5217	.
Palaeomonetes spp	0.117	0.0586	0.471	34.7826	.
All Bivalves	0.115	0.0457	0.660	65.2174	.
Polychaeta Spionidae	0.114	0.0552	0.833	69.5652	.
Paquid Crabs	0.110	0.0637	0.637	52.1739	.
Ovalipes quadrupensis zoea	0.106	0.0459	0.443	47.8261	.
Cancer irroratus zoea	0.081	0.0479	0.641	56.5217	.
Ovalipes spp Juvenile	0.075	.	0.075	4.3478	.
Myxidopsis bigelowi	0.066	0.0584	0.475	34.7826	.
Bothidae Etropus microstomus	0.061	0.0590	0.120	8.6957	.
Portunus sp zoea	0.054	.	0.054	4.3478	.
Cyclope sp zoea	0.052	.	0.052	8.6957	.
Polychaete F	0.044	0.0364	0.044	4.3478	.
Libinia spp zoea	0.039	0.0214	0.060	8.6957	.
Squilla Antizoea	0.038	0.0252	0.197	34.7826	.
Emerita talpoida	0.038	0.0167	0.109	30.4348	.
Xanthid Crabs	0.036	0.0175	0.154	39.1304	.
Megalopa D	0.033	.	0.033	4.3478	.
Naushonia crangonoides	0.033	0.0299	0.062	8.6957	.
Cancer sp megalopa	0.022	0.0180	0.040	8.6957	.
Engraulidae Anchoa mitchelli	0.022	0.0128	0.073	21.7391	.
Phoronida	0.019	.	0.019	4.3478	.
Ogyrides limicola	0.019	0.0070	0.045	26.0870	.
Gadidae Urophycis regius	0.017	0.0126	0.042	13.0435	.
Penaeid shrimp	0.017	.	0.017	4.3478	.
Blenniidae Hypsoblenius hentzi	0.017	0.0093	0.040	17.3913	.
Bivalve B	0.017	0.0039	0.028	17.3913	.
Euceramus praelongus	0.015	0.0037	0.028	21.7391	.
Polychaeta Autolytus spp	0.011	0.0087	0.020	8.6957	.

Table A1. (Continued)

NAME	MNMNABUN	SEMNABUN	MXMNABUN	POCCUR	PCOVER
Ingraulidae egg	132.308	74.8257	777.458	43.4783	34.7826
Callinectes sp zoea	16.494	9.2228	88.209	39.1304	13.0435
Upogebia affinis	7.999	6.6516	67.513	43.4783	4.3478
Other Fish Eggs	6.182	5.6444	23.078	17.3913	4.3478
Mysidopsis bigelowi	4.538	4.5219	36.191	34.7826	4.3478
All Fish eggs	4.078	1.9625	29.174	82.6087	8.6957
Sciaenidae egg	3.499	1.9405	29.174	65.2174	4.3478
Neomysis americana	3.263	3.2358	42.092	56.5217	4.3478
Crangon septemspinosa	2.716	1.3595	24.220	91.3043	13.0435
Uca spp	2.650	2.1552	15.543	30.4348	4.3478
Callinassa spp	0.759	0.6346	3.924	26.0870	.
Larvacea	0.621	0.4517	4.658	43.4783	.
Squilla (empusa?) protozoa	0.574	0.4798	2.479	21.7391	.
Acetes caroliniae	0.540	0.5045	1.549	13.0435	.
Ingraulidae fry	0.460	.	0.460	4.3478	.
Gastropods	0.437	0.3844	4.277	47.8261	.
Ovalipes quadripennis zoea	0.436	0.3439	2.133	26.0870	.
Xanthid Crabs	0.406	0.2549	2.325	39.1304	.
Cancer irroratus zoea	0.249	0.1078	1.085	43.4783	.
Lucifer Faxoni	0.210	0.1000	0.622	30.4348	.
Squilla Antizoea	0.208	0.0833	0.596	34.7826	.
Libinia spp zoea	0.192	0.1764	0.544	13.0435	.
Pinnotheres spp	0.188	0.1640	1.007	26.0870	.
Lepidopa websteri	0.177	.	0.177	4.3478	.
Emerita talpoida	0.149	0.0925	0.569	26.0870	.
Naushonia crangonoides	0.138	.	0.138	4.3478	.
Palaeomonetes spp	0.124	0.0401	0.395	43.4783	.
Cypode sp zoea	0.116	0.0525	0.321	21.7391	.
Pinnixa spp	0.112	0.0848	0.615	30.4348	.
Ingraulidae	0.099	0.0672	0.497	30.4348	.
Anchoa mitchelli	0.098	0.0718	0.456	26.0870	.
Hypsoblennius hentzi	0.075	0.0659	0.339	21.7391	.
Eucercanus praelongus	0.069	0.0404	0.271	30.4348	.
Pagurid Crabs	0.052	0.0311	0.172	21.7391	.
Atherinidae	0.052	0.0090	0.061	8.6957	.
Phoronida	0.051	0.0472	0.098	8.6957	.
Penaeid shrimp	0.050	0.0095	0.063	13.0435	.
Cyprides limicola	0.043	0.0171	0.077	13.0435	.
Polychaeta	0.038	0.0231	0.175	30.4348	.
Bothidae egg	0.038	0.0182	0.084	21.7391	.
Callinectes sp megalopa	0.022	.	0.022	4.3478	.
Megalopa B	0.020	0.0073	0.037	17.3913	.
Polychaeta	0.018	0.0089	0.121	56.5217	.
Other Bivalves	0.018	0.0114	0.061	21.7391	.
All Bivalves	0.016	0.0095	0.061	26.0870	.
Cancer #2 zoea	0.013	.	0.013	4.3478	.
Bothidae	0.012	0.0105	0.022	8.6957	.
Scophthalmus aquasus	0.011	0.0038	0.036	34.7826	.
Autolytus spp	0.008	.	0.008	4.3478	.
Trochophores & Nectochaetes	0.007	0.0042	0.011	8.6957	.
Ammodytes hexapterus	0.007	0.0029	0.015	17.3913	.
Nereidae	0.006	.	0.006	4.3478	.
Pomatomidae	0.005	0.0023	0.007	8.6957	.
Pomatomus saltatrix	0.005	0.0022	0.007	8.6957	.
downanella dissimilis	0.005	.	.	.	.

Table A1. (Continued)

		TOW TYPE=2		STATION=10			
NAME		MNMNABUN	SEMNABUN	MXMNABUN	POCCJR	PCOVER	
Megalopa A		0.00442500	.	0.00442500	4.3478	.	
Synbranchidae	Hippocampus eratus	0.00430000	.	0.00430000	4.3478	.	
Polychaeta	Nephtys sp	0.00380000	.	0.00380000	4.3478	.	
Portunid crab		0.00367500	.	0.00367500	4.3478	.	
Gadidae	Urophycis regius	0.00362500	.	0.00362500	4.3478	.	
Mugilidae	Mugil sp	0.00240000	0.00027500	0.00267500	8.6957	.	
Polychaeta	Unknown polychaete	0.00228750	0.00111250	0.00340000	8.6957	.	
Persephone punctata		C.00220000	.	0.00220000	4.3478	.	
Libinia dubia Megalopa		0.00215833	0.00012937	0.00230000	13.0435	.	
Portunus sp zoea		0.00197500	.	0.00197500	4.3478	.	
Ovalipes quadripennis megalopa		0.00190000	.	0.00190000	4.3478	.	
Cancer sp megalopa		0.00187500	.	0.00187500	4.3478	.	
Hemiramphidae	Hyporhamphus unifasciatus	C.00185000	.	0.00185000	4.3478	.	

Table A1. (Continued)

NAME	MMNABUN	SEMABUN	MXNABUN	POCCUR	PCOVER
Engraulidae egg	73.5109	34.0172	262.229	35.0000	25.0000
Crangon septemspinosa	48.9103	23.9204	398.848	85.0000	45.0000
Callinectes sp zoea	43.9657	15.9429	86.323	25.0000	20.0000
Larvacea	7.0159	5.5765	56.870	50.0000	5.0000
Sciaenidae egg	6.7608	2.9622	33.111	55.0000	15.0000
Uca spp	6.5327	4.6072	20.207	20.0000	5.0000
Pinnotheres spp	6.3059	4.5160	15.337	15.0000	5.0000
All Fish eggs	5.0497	2.2762	33.111	75.0000	15.0000
Neomysis americana	4.3290	3.8897	54.856	70.0000	5.0000
Polychaeta	3.3289	3.0123	15.359	25.0000	5.0000
Callinassa spp	2.5573	1.8275	11.620	30.0000	5.0000
Upogebia affinis	2.5097	0.6359	4.696	30.0000	5.0000
Mysidopsis bigelowi	2.3955	1.8477	18.792	50.0000	5.0000
Emerita talpoida	2.3065	1.6204	10.221	30.0000	5.0000
Pinnixa spp	2.2289	1.6482	13.561	40.0000	5.0000
Pagurid Crabs	2.1138	0.8656	8.493	55.0000	5.0000
Polychaeta	1.6783	0.6643	8.307	70.0000	5.0000
Gastropods	1.1439	0.7348	9.138	60.0000	5.0000
Cancer irroratus zoea	1.1065	0.7714	8.718	55.0000	5.0000
Xanthid Crabs	1.1041	0.3689	3.014	45.0000	5.0000
Homamella dissimilis	1.0219	0.9570	3.891	20.0000	5.0000
All Bivalves	0.9118	0.3923	3.761	55.0000	5.0000
Other Bivalves	0.8070	0.3616	3.761	50.0000	5.0000
Euceramus praelongus	0.7893	0.5682	4.157	35.0000	5.0000
Alpheus heterochaelis	0.7757	0.7757	0.776	5.0000	5.0000
Gobiidae	0.7213	0.5921	2.494	20.0000	5.0000
Gobiosoma bosci	0.7102	0.1931	1.136	20.0000	5.0000
Terebellidae spp	0.7010	0.5604	2.936	25.0000	5.0000
Lucifer Faxoni	0.4095	0.4095	0.410	5.0000	5.0000
Engraulidae fry	0.3690	0.1353	1.298	55.0000	5.0000
Polychaeta	0.3331	0.2184	1.394	30.0000	5.0000
Blennidae	0.3298	0.2252	1.216	25.0000	5.0000
Ovalipes quadripennis zoea	0.3266	0.2444	1.538	30.0000	5.0000
Bivalve B	0.2975	0.2013	0.694	15.0000	5.0000
Atherinidae	0.2929	0.1896	0.809	20.0000	5.0000
Gyrrides limicola	0.2798	0.2651	0.545	10.0000	5.0000
Acetes caroliniae	0.2547	0.1971	0.841	20.0000	5.0000
Polychaeta	0.2281	0.1541	0.970	30.0000	5.0000
Engraulidae	0.1907	0.0533	0.251	15.0000	5.0000
Libinia spp zoea	0.1856	0.0780	0.432	25.0000	5.0000
dothidae egg	0.1849	0.1703	0.696	20.0000	5.0000
Polychaeta	0.1826	0.0847	0.342	15.0000	5.0000
Squillid Antizoea	0.1724	0.0771	0.546	35.0000	5.0000
Palaemonetes spp	0.1530	0.1530	0.153	5.0000	5.0000
Libinia dubia Megalopa	0.1301	0.0687	0.329	25.0000	5.0000
Naushonia crangonoides	0.1277	0.0486	0.388	40.0000	5.0000
Phoronida	0.1121	0.0423	0.205	20.0000	5.0000
Other Fish Eggs	0.0997	0.0726	0.100	5.0000	5.0000
Polychaeta	0.0898	0.0898	0.306	20.0000	5.0000
Streptosio benedicti	0.0701	0.0701	0.070	5.0000	5.0000
Sesarma sp zoea	0.0470	0.0041	0.051	10.0000	5.0000
Ectropus microstomus	0.0427	0.0176	0.083	20.0000	5.0000
Bostridae	0.0364	0.0364	0.036	5.0000	5.0000
Scophthalmus aquasus	0.0343	0.0343	0.034	5.0000	5.0000
Urocyttus mellittae zoea	0.0343	0.0343	0.034	5.0000	5.0000
Ucypode sp zoea	0.0343	0.0343	0.034	5.0000	5.0000

Table A1. (Continued)

NAME	MNMNABUN	SEMNAABUN	MYMNAABUN	POCCUR	PCOVER
Fish - unknown	0.0332000	0.0174500	0.0506500	10.0000	.
Cancer #2 zoa	0.0322875	0.0237875	0.0560750	10.0000	.
Trinectes maculatus	0.0207250	.	0.0207250	5.0000	.
Amodytes hexapterus	0.0182667	0.0066983	0.0297500	15.0000	.
Polyonyx gibbesi	0.0083500	.	0.0083500	5.0000	.
Leptodopa websteri	0.0068000	.	0.0068000	5.0000	.
Anguillidae	0.0036000	.	0.0036000	5.0000	.
Anguilla rostrata	0.0034750	.	0.0034750	5.0000	.
Polychaeta					
Tomopteris spp					

Table A1. (Continued)

		TOW TYPE=2		STATION=05					
NAME	MNMNABUN	SEMNABUN	MYMNABUN	POCCUR	PCOVER				
Mysidopsis bigelowi	315.707	315.704	947.115	15.000	5.0000				
Callinectes sp zoea	73.937	41.123	373.890	45.000	25.0000				
Callinectes sp megalopa	16.924	10.535	98.974	50.000	15.0000				
Uca spp	12.252	10.527	75.249	35.000	5.0000				
Larvacea	9.192	7.590	84.634	55.000	5.0000				
Lucifer Faxoni	7.910	5.596	46.219	40.000	5.0000				
Sciaenidae egg	3.430	1.398	18.929	75.000	10.0000				
All Fish eggs	2.766	1.107	19.349	100.000	10.0000				
Squilla (lepusa?) protozoa	1.584	1.296	9.305	35.000	.				
Cancer #2 zoea	0.721	.	0.721	5.000	.				
Engraulidae egg	0.706	0.285	3.069	55.000	.				
Squillid Antizoea	0.521	0.224	1.491	35.000	.				
Persephone punctata	0.503	.	0.503	5.000	.				
Megalopa B	0.502	0.253	0.930	15.000	.				
Cancer irroratus zoea	0.347	0.154	1.541	60.000	.				
Ocyropsis sp zoea	0.227	0.223	0.450	10.000	.				
Uvalipes quadrupennis zoea	0.223	0.139	1.178	40.000	.				
Bothidae egg	0.216	0.099	1.097	55.000	.				
Gadidae	0.205	0.202	1.012	25.000	.				
Cancer sp megalopa	0.188	0.185	1.111	30.000	.				
Emerita talpoida	0.172	0.129	0.809	30.000	.				
Megalopa A	0.170	0.124	0.536	20.000	.				
Other Fish Eggs	0.166	0.135	1.238	45.000	.				
Synbranchidae	0.153	.	0.153	5.000	.				
Upogebia affinis	0.136	0.067	0.304	20.000	.				
Pagurid Crabs	0.125	0.078	0.699	45.000	.				
Uvalipes zoea	0.112	0.073	0.186	10.000	.				
Gastropods	0.110	0.028	0.330	70.000	.				
Mugil sp	0.100	0.096	0.196	10.000	.				
Xanthid Crabs	0.100	0.088	0.629	35.000	.				
Megalopa F	0.089	.	0.089	5.000	.				
Acetes caroliniae	0.078	0.051	0.224	20.000	.				
Crangon septemspinosa	0.077	0.038	0.427	55.000	.				
Lepidopa websteri	0.065	.	0.065	5.000	.				
Libinia spp zoea	0.063	.	0.063	5.000	.				
Polychaeta	0.048	0.046	0.095	10.000	.				
Amodytidae	0.046	0.036	0.151	20.000	.				
Pomatodidae	0.043	0.039	0.082	10.000	.				
Libinia dubia Megalopa	0.041	0.039	0.080	10.000	.				
Other Bivalves	0.039	0.033	0.301	45.000	.				
All Bivalves	0.033	0.024	0.301	60.000	.				
Panaeid shrimp	0.033	0.015	0.060	15.000	.				
Scophthalmus aquasus	0.032	0.026	0.084	15.000	.				
Bothidae	0.031	.	0.031	5.000	.				
Portunidae zoea	0.031	0.010	0.070	30.000	.				
Cyprides limicola	0.029	.	0.029	5.000	.				
Clupeidae	0.029	.	0.029	5.000	.				
Bommanella dissimilis	0.027	.	0.108	65.000	.				
Polychaeta	0.027	0.008	0.026	5.000	.				
Nauphoia crangonoides	0.026	.	0.026	5.000	.				
Bothidae	0.021	0.005	0.027	15.000	.				
Neomysis americana	0.020	0.008	0.084	50.000	.				
Phoronida	0.018	0.016	0.049	15.000	.				
Palaeomonetes spp	0.016	0.003	0.024	25.000	.				
Polychaeta	0.015	0.013	0.028	10.000	.				
Trochophores & Nectochaetes									

Table A1. (Continued)

NAME	MMNABUN	SENNABUN	MXNABUN	PDCCUR	PCOVER
Atherinidae	0.0142250	.	0.0142250	5.0000	.
Bivalve B	0.0134667	0.00631784	0.0249250	15.0000	.
Portunus sp zoea	0.0121000	0.00620000	0.0183000	10.0000	.
Polychaete A	0.0117500	.	0.0117500	5.0000	.
Hypoblennius hentzi	0.0113250	0.00710664	0.0397000	25.0000	.
Anchoa mitchelli	0.0110500	0.00330533	0.0201750	25.0000	.
Portunid crab	0.010937	0.00376626	0.0190000	20.0000	.
Fish - unknown	0.0084750	.	0.0084750	5.0000	.
Gobiidae	0.0080000	.	0.0080000	5.0000	.
Gobiosoma bosci	0.0075000	0.00465000	0.0123500	10.0000	.
Stromateidae	0.0074937	0.00090591	0.0091000	20.0000	.
Peprilus triacanthus	0.0063500	.	0.0063500	5.0000	.
Euceramus praelongus	0.0053000	0.00219934	0.0118000	20.0000	.
Pinnotheres spp	0.0050250	.	0.0050250	5.0000	.
Anadara spp	0.0048250	.	0.0048250	5.0000	.
Alpheus normanni	0.0045500	.	0.0045500	5.0000	.
Polychaeta	0.0045000	0.00215000	0.0066000	10.0000	.
Megalopa C	0.0042500	.	0.0042500	5.0000	.
Serranidae spp	0.0040000	0.00130000	0.0053000	10.0000	.
Callinassa spp	0.0024500	0.00020000	0.0026500	10.0000	.
Gadidae	0.0023500	.	0.0023500	5.0000	.
Enchelyopus cimbrius	0.0023500	.	0.0023500	5.0000	.
Astroscoptes guttatus	0.0023500	.	0.0023500	5.0000	.
Bothidae	0.0023500	.	0.0023500	5.0000	.
Polychaeta	0.0021250	.	0.0021250	5.0000	.
Terebellidae spp	0.0021250	.	0.0021250	5.0000	.



Table A1. (Continued)

TOW TYPE=3 STATION=05					
NAPE	MMNABUN	SENNABUN	MXMNABUN	POCCUR	PCOVER
Cancer irroratus zoea	97.0021	83.3600	1005.69	57.1429	14.2857
Callinectes sp zoea	86.9220	73.6915	747.32	47.6190	19.0476
Larvacea	19.9280	12.6511	187.09	71.4286	19.0476
Mysidopsis biyefowi	19.0587	17.7057	125.14	33.3333	4.7619
Lucifer Faxoni	9.5318	6.3729	48.43	38.0952	9.5238
Gastropods	5.4136	2.0669	35.06	95.2381	14.2857
Crangon septemspinosa	2.8022	0.9928	19.02	90.4762	4.7619
Neomysis americana	2.7236	1.4069	16.25	61.9048	9.5238
Other Bivalves	2.3726	2.0433	24.81	57.1429	4.7619
All Bivalves	1.9918	1.6356	24.81	71.4286	4.7619
Sciaenidae egg	1.8481	0.5587	8.40	71.4286	4.7619
Polychaeta	1.6739	1.1275	20.17	85.7143	4.7619
All Fishes	1.5809	0.4788	8.40	90.4762	4.7619
Pagurid Crabs	1.2627	0.5723	9.18	85.7143	4.7619
Engraulidae egg	0.9988	0.7530	7.75	47.6190	4.7619
Sciaenidae spp	0.9332	0.5174	0.93	4.7619	4.7619
Megalopa A	0.6371	0.6129	3.70	28.5714	4.7619
Amodytidae	0.5659	0.2333	1.35	28.5714	4.7619
Callinectes sp megalopa	0.5427	0.2723	1.69	33.3333	4.7619
Uca spp	0.5377	0.2745	2.56	42.8571	4.7619
Megalopa B	0.5249	0.5174	1.04	9.5238	4.7619
Uphididae	0.4915	0.4915	0.49	4.7619	4.7619
Squilla (empusa?) protozoa	0.4866	0.2513	1.87	33.3333	4.7619
Homamellia dissimilis	0.4473	0.4094	1.27	14.2857	4.7619
Uvalipes quadrupennis zoea	0.4363	0.2606	2.39	42.8571	4.7619
Squilla Antiozoea	0.4291	0.2098	1.54	38.0952	4.7619
Emerita talpoida	0.3521	0.2056	1.52	33.3333	4.7619
Acetes caroliniae	0.2924	0.0726	0.46	23.8095	4.7619
Polychaeta	0.2645	0.1473	2.12	66.6667	4.7619
Engraulidae	0.2426	0.1252	1.03	38.0952	4.7619
Bivalve B	0.2343	0.1347	0.89	28.5714	4.7619
Scophthalmus aquasus	0.2180	0.0875	0.74	57.1429	4.7619
Bothidae egg	0.2062	0.0752	0.77	47.6190	4.7619
Upoebia affinis	0.1808	0.0818	0.56	38.0952	4.7619
Xanthid Crabs	0.1534	0.0535	0.45	38.0952	4.7619
Polychaeta	0.1500	0.0767	0.34	19.0476	4.7619
Ugyrides limicola	0.1240	0.0524	0.29	23.8095	4.7619
Leptochela serratorbita	0.1063	0.0479	0.15	9.5238	4.7619
Polychaeta	0.1001	0.0342	0.25	28.5714	4.7619
Mageloniidae	0.0986	0.0342	0.10	4.7619	4.7619
bothidae spp	0.0905	0.0366	0.09	4.7619	4.7619
Lepidopoda websteri	0.0860	0.0366	0.17	23.8095	4.7619
Libinia spp zoea	0.0851	0.0805	0.17	9.5238	4.7619
Gubidae	0.0828	0.0312	0.24	33.3333	4.7619
Gubiosoma bosci	0.0761	0.0302	0.26	38.0952	4.7619
Palaeomonetes spp	0.0743	0.0232	0.14	28.5714	4.7619
Pinnotheres spp	0.0736	0.0099	0.08	9.5238	4.7619
Uvalipes zoea	0.0728	0.0675	0.14	9.5238	4.7619
Lophidae	0.0679	0.0497	0.41	38.0952	4.7619
Lophius americana	0.0635	0.0635	0.06	4.7619	4.7619
Uvalipes quadrupennis megalopa	0.0627	0.0627	0.06	4.7619	4.7619
Serranidae spp	0.0551	0.0228	0.12	19.0476	4.7619
Hypsoablennius hentzi	0.0455	0.0455	0.05	4.7619	4.7619
Polychaeta	0.0431	0.0245	0.12	19.0476	4.7619
Penaeid shrimp	0.0431	0.0245	0.12	19.0476	4.7619

Table A1. (Continued)

NAME	TOW TYPE-3	STATION-05	MNMNABUN	SEMNABUN	MXMNABUN	POCCUR	PCOVER
Cancer sp megalopa			0.0380750	.	0.038075	4.7619	.
Polychaeta			0.0376875	0.0128007	0.072550	19.0476	.
Terebellidae spp			0.0335708	0.0171905	0.099825	28.5714	.
Callinassa spp			0.0317937	0.0130577	0.100100	38.0952	.
Other Fish Eggs			0.0308750	.	0.030875	4.7619	.
Libinia emarginata Megalopa			0.0292100	0.0108018	0.067950	23.8095	.
Naushonia crangonoides			0.0272250	0.0219500	0.049175	9.5238	.
Hippolyte pleuracantha			0.0269125	0.0124875	0.039400	9.5238	.
Trigidae			0.0233750	0.0030000	0.026375	9.5238	.
Unidentifiable fish			0.0200750	.	0.020075	4.7619	.
Ucypode sp zoea			0.0195062	0.0124500	0.056850	19.0476	.
Paralichthys dentatus			0.0169812	0.0101181	0.047225	19.0476	.
Bothidae			0.0153750	.	0.015375	4.7619	.
Etropus microstomus			0.0140750	.	0.014075	4.7619	.
Megalopa F			0.0138500	0.0029894	0.023925	33.3333	.
Persephone punctata			0.0133250	.	0.013325	4.7619	.
Euceraeus praelongus			0.0103000	0.0067750	0.017075	9.5238	.
Clupeidae			0.0100917	0.0056152	0.021000	14.2857	.
Rissola marginata			0.0093125	0.0017875	0.011100	9.5238	.
Ophiidae			0.0087000	.	0.008700	4.7619	.
Stromateidae			0.0083500	.	0.008350	4.7619	.
Portunidae zoea			0.0074250	.	0.007425	4.7619	.
Polyonyx gibbesi			0.0068750	.	0.006875	4.7619	.
Bairdella chrysur			0.0065000	.	0.006500	4.7619	.
Synghathus fuscus			0.0050250	.	0.005025	4.7619	.
Synghathidae			0.0050250	.	0.005025	4.7619	.
Libinia sp Juvenile			0.0050250	.	0.005025	4.7619	.

Table A2. The taxonomic groups that met the abundance/occurrence criteria of 10/m<sup>3</sup> in at least 5% of all observations and the station/tow types for which they met the criteria. The "NNNNABUND" column has the same meaning as in Table A1. Tow type 1 = 153<sub>μ</sub> oblique; tow type 2 = 353<sub>μ</sub> neuston; and tow type 3 = 353<sub>μ</sub> oblique.

Table A2.

TYPES &amp; SITES OVER 10/M3 AND OVER 5% ABUNDANCE

SPECIES NAME=All Fisheggs

TYPE	SITE	MNNABUN
2	DS	2.7665
2	LO	4.0778
2	8	9.7783
2	9	17.1799
3	LO	5.0497
3	3	7.1740
3	4	7.3700
3	8	7.6264
3	2	9.6549
3	1	9.8467
3	9	61.6954

SPECIES NAME=Callinassa spp

TYPE	SITE	MNNABUN
3	3	4.42029

SPECIES NAME=Callinectes sp megalopa

TYPE	SITE	MNNABUN
2	DS	16.9240

SPECIES NAME=Callinectes sp zoea

TYPE	SITE	MNNABUN
2	8	9.843
2	LO	16.494
2	DS	73.937
2	9	101.539
3	4	10.245
3	3	15.508
3	2	29.976
3	8	34.676
3	LO	43.966
3	1	65.834
3	9	78.145
3	DS	86.922

SPECIES NAME=Cancer irritoratus zoea

TYPE	SITE	MNNABUN
3	1	4.4934
3	DS	97.0021

Table A2. (Continued)

TYPES & SITES OVER 10/M3 AND OVER 5% ABUNDANCE

SPECIES NAME=Cragon septempinos

TYPE	SITE	MMNABUN
2	10	2.7164
2	9	6.6286
3	8	3.2964
3	9	6.9767
3	4	7.2765
3	2	15.5098
3	3	17.2567
3	1	19.3164
3	10	48.9103

SPECIES NAME=Engraulidae egg

TYPE	SITE	MMNABUN
2	9	47.021
2	8	117.304
2	10	132.308
3	6	4.759
3	7	4.831
3	5	14.710
3	8	22.266
3	3	22.321
3	4	26.278
3	2	28.753
3	1	33.488
3	10	73.511
3	9	83.496

SPECIES NAME=Gastropods

TYPE	SITE	MMNABUN
3	4	2.9568
3	2	3.1130
3	DS	5.4136
3	3	8.7372
3	1	14.7397

SPECIES NAME=Larvacea

TYPE	SITE	MMNABUN
3	4	16.3736
3	DS	19.9280
3	2	22.0265
3	9	25.3822
3	3	27.3685
3	1	43.6588

Table A2. (Continued)

TYPES &amp; SITES OVER 10/M3 AND OVER 5% ABUNDANCE

----- SPECIES NAME=Lucifer Faxonii -----

TYPE	SITE	MNNABUN
3	DS	9.53179

----- SPECIES NAME=Mysidopsis bigelowi -----

TYPE	SITE	MNNABUN
3	2	1.94161

----- SPECIES NAME=Neomysis americana -----

TYPE	SITE	MNNABUN
3	DS	2.7236
3	8	3.2674
3	7	3.4903
3	9	4.3592
3	2	4.3997
3	6	7.2032
3	5	25.0239

----- SPECIES NAME=Other Fish Eggs -----

TYPE	SITE	MNNABUN
2	8	7.6459
3	8	8.8120
3	4	10.3036

----- SPECIES NAME=Pagurid Crabs -----

TYPE	SITE	MNNABUN
3	1	3.85988
3	9	5.55243
3	2	7.52062

----- SPECIES NAME=Pinnixa spp -----

TYPE	SITE	MNNABUN
3	2	4.4122
3	9	12.7698
3	3	17.4886

----- SPECIES NAME=Pinnotheres spp -----

TYPE	SITE	MNNABUN
------	------	---------

Table A2. (Continued)

TYPES & SITES OVER 10/M3 AND OVER 5% ABUNDANCE

SPECIES NAME=Pinnotherea spp		
TYPE	SITE	MNNABUN
3	5	2.60974
SPECIES NAME=Polychaeta		
Splonidae		
TYPE	SITE	MNNABUN
3	9	1.63716
SPECIES NAME=Sciaenidae egg		
TYPE	SITE	MNNABUN
2	DS	3.4303
2	8	7.8633
2	9	13.5190
3	8	5.9456
3	3	6.1597
3	10	6.7608
3	2	11.1455
3	9	73.7996
SPECIES NAME=Uca spp		
TYPE	SITE	MNNABUN
2	9	4.3686
3	4	3.4550
3	7	8.0142
3	8	16.0802
3	9	32.3703
SPECIES NAME=Upogebia affinis		
TYPE	SITE	MNNABUN
3	1	2.6555
3	7	3.6451
3	8	7.3701
3	9	7.5743
3	2	10.3413
3	4	13.6884
3	5	15.3248
3	3	15.3502
3	6	29.9866

Table A2. (Continued)

TYPES & SITES OVER 10/M3 AND OVER 52 ABUNDANCE

SPECIES NAME=Xanthid Crabs

TYPE	SITE	MNMNABUN
3	4	4.97224
3	6	5.12366
3	5	9.99170



Table A2. (Continued)

TYPES &amp; SITES OVER 10/M3 AND OVER 5% ABUNDANCE 13:46 FRIDAY, MARCH 22, 1985 15

## SPECIES NAME=All Bivalves

TYPE	SITE	MMNABUN
1	7	26.12
1	6	67.30
1	5	94.41
1	9	439.17
1	8	471.92
1	10	968.49
1	2	1462.11
1	1	1688.56
1	DS	2410.15
1	4	3510.04
1	3	5150.43

## SPECIES NAME=Bivalve 8

TYPE	SITE	MMNABUN
1	7	18.71
1	6	56.66
1	5	84.02
1	9	433.30
1	8	471.33
1	10	967.90
1	2	1461.43
1	1	1688.02
1	DS	2409.77
1	4	3499.51
1	3	5149.92

## SPECIES NAME=Larvacea

TYPE	SITE	MMNABUN
1	10	38.753
1	DS	52.665
1	4	55.606
1	3	123.497
1	8	137.475
1	2	138.264
1	1	449.487
1	9	513.386

## SPECIES NAME=Oyster

TYPE	SITE	MMNABUN
1	7	15.4401
1	6	18.0518
1	5	20.4891

Table A2. (Continued)  
TYPES & SITES OVER 10/M3 AND OVER 5% ABUNDANCE

SPECIES NAME=Phoronida		
TYPE	SITE	MNNABUN
1	2	5.95005
1	4	6.22960
SPECIES NAME=Polychaeta		
Magelonidae		
TYPE	SITE	MNNABUN
1	8	4.6740
1	10	8.1272
1	9	13.2475
SPECIES NAME=Polychaeta		
Spionidae		
TYPE	SITE	MNNABUN
1	DS	17.216
1	1	26.955
1	3	41.561
1	4	53.386
1	2	56.461
1	9	95.314
1	8	102.889
1	6	104.597
1	7	105.808
1	10	106.730
1	5	115.975
SPECIES NAME=Polychaeta		
Trochophores & Nectochaetes		
TYPE	SITE	MNNABUN
1	9	3.4885
1	4	3.8520
1	1	5.5540
1	10	8.1474
1	3	13.5562

Table A3. The abundance data for important meroplankton groups of the study area. The values are the means of four replicates, while the values in parentheses are the standard errors. The order of presentation is the same as that in the text: decapod crustaceans, fish eggs and larvae (flatfish, sciaenids and others) and other invertebrate larvae (bivalves, polychaetes, larvaceans, and phoronids). Station, tow types and corresponding mesh sizes (153 and 353 micron) are noted.

Table A3.

DECAPOD CRABS  
SUMMARY OF TGS AT STATION 1  
MEAN OF 4 353 U CBLIQUE TONS IN NOS PER METER CUBED(STD ERROR)

DATE	Xanthid Crabs	Plinnixa spp	Pinnotherea spp	Uca spp	Pagurid Crabs
30MAY82	0.01 ( 0.01)	0.01 ( 0.01)	0.00 ( . )	0.03 ( 0.02)	0.18 ( 0.09)
06JUN82	0.13 ( 0.10)	0.00 ( . )	0.01 ( 0.01)	0.61 ( 0.26)	1.53 ( 0.42)
21JUN82	0.19 ( 0.06)	0.01 ( 0.01)	0.15 ( 0.07)	0.04 ( 0.02)	2.57 ( 0.93)
12JUL82	0.50 ( 0.34)	0.38 ( 0.30)	0.14 ( 0.08)	0.98 ( 0.33)	14.34 ( 2.59)
30JUL82	0.35 ( 0.17)	0.15 ( 0.09)	1.24 ( 0.48)	0.76 ( 0.34)	6.84 ( 0.50)
04AUG82	1.03 ( 0.40)	0.15 ( 0.09)	0.47 ( 0.25)	0.37 ( 0.16)	0.60 ( 0.20)
18AUG82	2.56 ( 0.99)	0.85 ( 0.32)	4.49 ( 1.72)	2.77 ( 0.45)	19.90 ( 6.47)
30AUG82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.09 ( 0.09)	0.01 ( 0.01)
16SEP82	0.42 ( 0.29)	0.31 ( 0.20)	0.17 ( 0.14)	1.18 ( 0.98)	2.05 ( 1.51)
24SEP82	2.21 ( 0.07)	5.87 ( 0.54)	10.48 ( 1.60)	0.58 ( 0.09)	1.67 ( 0.38)
07OCT82	0.41 ( 0.11)	6.99 ( 1.73)	0.73 ( 0.34)	0.05 ( 0.02)	10.19 ( 1.26)
15OCT82	0.19 ( 0.04)	0.42 ( 0.08)	0.57 ( 0.16)	0.00 ( . )	2.15 ( 0.27)
29OCT82	0.02 ( 0.02)	0.63 ( 0.04)	0.02 ( 0.01)	0.00 ( . )	0.47 ( 0.05)
11NOV82	0.00 ( . )	0.30 ( 0.02)	0.00 ( . )	0.00 ( . )	0.34 ( 0.13)
24NOV82	0.00 ( . )	0.54 ( 0.03)	0.00 ( . )	0.00 ( . )	0.32 ( 0.01)
10DEC82	0.02 ( 0.01)	0.04 ( 0.01)	0.00 ( . )	0.04 ( 0.02)	0.30 ( . )
21DEC82	0.00 ( . )	0.00 ( 0.00)	0.00 ( . )	0.00 ( . )	0.00 ( . )
31JAN83	0.01 ( 0.01)	0.02 ( 0.02)	0.00 ( . )	0.00 ( . )	0.30 ( 0.01)
21FEB83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.02 ( 0.02)
10FAR83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.01 ( 0.01)	0.00 ( . )
27APR83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.03 ( 0.03)
11MAY83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.16 ( 0.06)
31MAY83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.01 ( 0.01)	1.33 ( 0.24)
24JUN83	0.85 ( 0.33)	0.20 ( 0.05)	0.00 ( . )	0.22 ( 0.10)	4.74 ( 1.86)
13JUL83	12.91 ( 6.04)	12.65 ( 7.42)	0.00 ( . )	120.85 (42.65)	9.07 ( 4.32)
28JUL83	0.69 ( 0.16)	1.65 ( 0.52)	0.83 ( 0.25)	0.15 ( 0.09)	2.75 ( 0.45)
04AUG83	5.78 ( 0.69)	4.89 ( 1.00)	0.00 ( . )	3.01 ( 0.81)	14.70 ( 1.78)
26AUG83	12.78 ( 4.37)	17.61 ( 5.21)	2.17 ( 1.25)	5.36 ( 3.39)	4.84 ( 1.70)
12SEP83	1.27 ( 0.63)	1.62 ( 0.61)	1.10 ( 0.23)	0.47 ( 0.42)	9.52 ( 3.23)
03OCT83	0.53 ( 0.08)	1.63 ( 0.34)	1.08 ( 0.22)	0.05 ( 0.05)	2.64 ( 0.42)
13OCT83	1.43 ( 0.71)	5.52 ( 3.85)	0.71 ( 0.45)	0.00 ( . )	4.58 ( 3.29)
01NOV83	0.01 ( 0.01)	0.35 ( 0.13)	0.01 ( 0.01)	0.00 ( . )	0.40 ( 0.23)
19NOV83	0.01 ( 0.01)	0.49 ( 0.09)	0.00 ( . )	0.00 ( . )	1.97 ( 0.61)
11DEC83	0.00 ( . )	0.17 ( 0.09)	0.00 ( . )	0.00 ( . )	0.34 ( 0.03)

Table A3. (Continued)

DECAPOD CRABS  
SUMMARY OF TOWS AT STATION 2  
MEAN OF 4 353 U CBLIQUE TOWS IN NOS PER METER CUBED(STD ERROR)

DATE	Xanthid Crabs	Pinnixa spp	Pinnotheres spp	Uca spp	Pagurid Crabs
24MAY82	0.01 ( 0.01)	0.00 ( 0.01)	0.00 ( . )	0.04 ( 0.04)	0.74 ( 0.32)
30MAY82	0.11 ( 0.05)	0.01 ( 0.01)	0.00 ( . )	0.02 ( 0.01)	0.48 ( 0.31)
08JUN82	0.07 ( 0.04)	0.01 ( 0.01)	0.00 ( . )	0.00 ( . )	0.29 ( 0.09)
21JUN82	0.84 ( 0.23)	8.44 ( 2.46)	0.06 ( 0.04)	0.00 ( 0.07)	1.10 ( 0.40)
12JUL82	1.24 ( 0.30)	4.80 ( 1.09)	1.90 ( 0.73)	1.59 ( 0.38)	4.95 ( 2.93)
30JUL82	6.25 ( 2.36)	3.02 ( 0.74)	13.12 ( 4.67)	2.87 ( 0.76)	34.72 ( 12.39)
04AUG82	3.75 ( 1.16)	1.47 ( 0.38)	5.40 ( 1.62)	3.07 ( 0.26)	116.62 ( 22.22)
18AUG82	33.50 ( 6.10)	23.32 ( 8.57)	3.42 ( 1.86)	34.46 ( 10.48)	0.81 ( 0.35)
30AUG82	4.84 ( 0.98)	4.12 ( 0.20)	7.76 ( 2.68)	1.51 ( 0.42)	1.22 ( 0.16)
16SEP82	8.04 ( 3.38)	3.61 ( 1.16)	15.97 ( 3.44)	3.08 ( 1.42)	2.20 ( 0.52)
24SEP82	2.29 ( 0.16)	1.74 ( 0.15)	3.86 ( 1.27)	0.59 ( 0.20)	0.48 ( 0.08)
07OCT82	0.90 ( 0.15)	2.23 ( 0.29)	0.17 ( 0.07)	0.27 ( 0.10)	6.11 ( 0.53)
15OCT82	0.50 ( 0.13)	1.59 ( 0.09)	0.86 ( 0.16)	0.00 ( . )	1.14 ( 0.15)
29OCT82	0.02 ( 0.01)	0.04 ( 0.03)	0.03 ( 0.02)	0.00 ( . )	0.33 ( 0.01)
11NOV82	0.00 ( . )	0.39 ( 0.16)	0.00 ( . )	0.00 ( . )	0.13 ( 0.07)
24NOV82	0.00 ( . )	0.04 ( 0.01)	0.01 ( 0.00)	0.00 ( . )	0.00 ( . )
10DEC82	0.01 ( 0.01)	0.09 ( 0.01)	0.00 ( . )	0.00 ( . )	0.30 ( . )
31JAN83	0.01 ( 0.01)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.30 ( . )
09FEB83	0.00 ( . )	0.01 ( 0.01)	0.00 ( . )	0.00 ( . )	0.00 ( . )
21FEB83	0.00 ( . )	0.02 ( 0.02)	0.00 ( . )	0.03 ( 0.03)	0.30 ( . )
10MAR83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.32 ( 0.02)
31MAY83	0.14 ( 0.14)	0.07 ( 0.07)	0.00 ( . )	0.00 ( . )	0.54 ( 0.34)
24JUN83	2.26 ( 1.08)	9.05 ( 5.62)	0.00 ( . )	0.21 ( 0.15)	1.09 ( 0.29)
13JUL83	3.19 ( 0.77)	2.10 ( 0.25)	3.75 ( 0.69)	5.33 ( 1.24)	2.95 ( 1.36)
28JUL83	6.85 ( 0.94)	4.60 ( 0.86)	6.06 ( 0.06)	10.06 ( 2.45)	2.86 ( 0.71)
09AUG83	7.54 ( 1.40)	15.89 ( 2.55)	0.06 ( 0.04)	4.70 ( 0.53)	8.39 ( 0.53)
28AUG83	6.29 ( 0.78)	8.28 ( 2.80)	0.01 ( 0.01)	2.16 ( 0.34)	0.50 ( 0.30)
12SEP83	23.62 ( 1.95)	36.24 ( 3.22)	1.20 ( 0.27)	5.50 ( 1.70)	14.57 ( 1.78)
03OCT83	1.13 ( 0.03)	0.14 ( 0.05)	2.37 ( 0.42)	0.00 ( . )	0.21 ( 0.04)
13OCT83	0.57 ( 0.11)	0.66 ( 0.05)	0.77 ( 0.32)	0.00 ( . )	0.39 ( 0.14)
28OCT83	0.13 ( 0.09)	0.22 ( 0.05)	0.02 ( 0.02)	0.00 ( . )	0.21 ( 0.07)
18NOV83	0.04 ( 0.08)	0.20 ( 0.16)	0.00 ( . )	0.01 ( 0.01)	0.02 ( 0.01)
02DEC83	0.01 ( 0.01)	0.01 ( 0.01)	0.00 ( . )	0.00 ( . )	0.30 ( . )

Table A3. (Continued)

DECAPOD CRABS  
SUMMARY OF TOWS AT STATION 3  
MEAN OF 4 353 U OBLIQUE TOWS IN NOS PER METER CUBED (STD ERROR)

DATE	Xanthid Crabs	Pinnixa spp	Pinnotheres spp	Uca spp	Pagurid Crabs
29APR82	0.00 ( . )	0.00 ( . )	0.00 ( 0.00)	0.00 ( . )	0.06 ( 0.02)
29MAY82	0.02 ( 0.02)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.27 ( 0.27)
30MAY82	0.09 ( 0.02)	0.13 ( 0.06)	0.01 ( 0.01)	0.04 ( 0.02)	1.21 ( 0.17)
08JUN82	0.14 ( 0.04)	0.09 ( 0.02)	0.04 ( 0.04)	0.74 ( 0.23)	3.36 ( 0.70)
21JUN82	0.33 ( 0.10)	7.96 ( 2.35)	0.02 ( 0.02)	0.04 ( 0.02)	0.39 ( 0.12)
12JUL82	0.48 ( 0.09)	3.71 ( 1.14)	2.01 ( 0.74)	0.71 ( 0.13)	0.94 ( 0.27)
30JUL82	5.12 ( 1.74)	8.57 ( 2.75)	4.90 ( 0.38)	4.32 ( 1.68)	7.28 ( 2.45)
16AUG82	11.97 ( 7.16)	4.16 ( 1.48)	14.28 ( 5.25)	5.19 ( 3.10)	16.81 ( 7.12)
30AUG82	1.13 ( 0.31)	1.50 ( 0.22)	8.63 ( 0.83)	1.01 ( 0.20)	4.21 ( 0.40)
16SEP82	9.75 ( 4.22)	28.50 ( 6.15)	4.64 ( 1.64)	7.30 ( 3.93)	9.72 ( 3.76)
24SEP82	0.41 ( 0.41)	0.55 ( 0.55)	0.87 ( 0.87)	0.09 ( 0.09)	0.16 ( 0.16)
27OCT82	1.33 ( 0.13)	0.65 ( 0.37)	0.61 ( 0.30)	0.01 ( 0.01)	0.43 ( 0.04)
13OCT82	0.16 ( 0.06)	1.21 ( 0.18)	0.26 ( 0.08)	0.00 ( . )	1.02 ( 0.15)
11NOV82	0.00 ( . )	0.27 ( 0.00)	0.00 ( . )	0.02 ( 0.01)	0.37 ( 0.04)
24NOV82	0.06 ( 0.05)	0.02 ( 0.01)	0.00 ( . )	0.00 ( . )	0.30 ( . )
10DEC82	0.02 ( 0.02)	0.14 ( 0.03)	0.00 ( . )	0.00 ( . )	0.00 ( . )
31JAN83	0.00 ( . )	0.01 ( 0.01)	0.00 ( . )	0.00 ( . )	0.30 ( . )
21FEB83	0.01 ( 0.01)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.30 ( . )
11MAY83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.39 ( 0.03)
31MAY83	0.07 ( 0.07)	0.00 ( . )	0.00 ( . )	0.00 ( . )	1.06 ( 0.31)
24JUN83	1.19 ( 0.22)	12.05 ( 0.50)	0.00 ( . )	0.05 ( 0.03)	3.29 ( 0.26)
13JUL83	3.51 ( 0.45)	8.29 ( 2.07)	0.45 ( 0.45)	3.67 ( 0.64)	0.84 ( 0.17)
28JUL83	3.06 ( 0.74)	11.54 ( 3.08)	0.00 ( . )	3.53 ( 0.73)	0.52 ( 0.25)
09AUG83	1.20 ( 0.41)	4.68 ( 1.46)	1.32 ( 0.55)	3.45 ( 0.71)	1.92 ( 0.80)
26AUG83	4.52 ( 1.40)	3.86 ( 0.94)	0.52 ( 0.23)	4.76 ( 0.72)	0.56 ( 0.15)
12SEP83	161.41 ( 126.44)	369.63 ( 310.74)	196.69 ( 171.07)	27.90 ( 24.80)	142.35 ( 117.81)
03OCT83	0.54 ( 0.06)	1.24 ( 0.42)	0.31 ( 0.18)	0.02 ( 0.02)	2.60 ( 0.58)
13OCT83	1.29 ( 0.30)	2.62 ( 0.71)	0.67 ( 0.25)	0.00 ( . )	1.47 ( 0.41)
28OCT83	0.03 ( 0.02)	0.42 ( 0.14)	0.05 ( 0.03)	0.00 ( . )	0.35 ( 0.05)
29OCT83	0.04 ( 0.02)	0.30 ( 0.03)	0.00 ( . )	0.03 ( 0.03)	0.10 ( 0.05)
18NOV83	0.00 ( . )	0.01 ( 0.01)	0.00 ( . )	0.00 ( . )	0.31 ( 0.01)
02DEC83	0.00 ( . )	0.09 ( 0.07)	0.00 ( . )	0.00 ( . )	0.00 ( . )

Table A3. (Continued)

DECAPOD CRABS  
SUMMARY OF TOWS AT STATION 4  
MEAN OF 4 353 U CBLIQUE TOWS IN NOS PER METER CUBED (STD ERROR)

DATE	Xanthid Crabs	Pinnixa spp	Pinnotheres spp	Uca spp	Pagurid Crabs
29APR82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.01 ( 0.01)
29APR82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.43 ( 0.27)
30MAY82	0.31 ( 0.06)	0.00 ( . )	0.00 ( . )	0.10 ( 0.04)	0.40 ( 0.09)
08JUN82	0.20 ( 0.08)	0.05 ( 0.02)	0.00 ( . )	0.00 ( . )	0.87 ( 0.28)
21JUN82	0.91 ( 0.36)	1.43 ( 0.65)	0.04 ( 0.05)	0.16 ( 0.11)	0.22 ( 0.04)
12JUL82	2.55 ( 1.33)	4.78 ( 1.03)	0.37 ( 0.18)	1.19 ( 0.38)	0.07 ( 0.03)
30JUL82	11.56 ( 5.22)	18.31 ( 7.71)	4.29 ( 2.47)	2.15 ( 1.35)	6.78 ( 3.39)
04AUG82	3.14 ( 0.67)	0.68 ( 0.23)	5.23 ( 0.99)	4.73 ( 2.60)	0.72 ( 0.25)
16AUG82	3.64 ( 1.95)	0.80 ( 0.35)	3.23 ( 1.44)	1.39 ( 0.78)	0.16 ( 0.09)
30AUG82	3.26 ( 1.49)	3.68 ( 0.99)	9.35 ( 2.13)	0.20 ( 0.12)	0.86 ( 0.40)
16SEP82	2.02 ( 0.88)	0.61 ( 0.26)	5.04 ( 3.66)	0.29 ( 0.15)	0.25 ( 0.18)
24SEP82	2.26 ( 0.54)	1.66 ( 0.13)	7.56 ( 2.85)	0.29 ( 0.14)	1.06 ( 0.25)
07OCT82	0.57 ( 0.41)	0.49 ( 0.19)	0.75 ( 0.38)	0.22 ( 0.17)	0.34 ( 0.31)
15OCT82	0.07 ( 0.04)	0.38 ( 0.12)	0.04 ( 0.03)	0.00 ( . )	0.07 ( 0.01)
29OCT82	0.03 ( 0.02)	0.06 ( 0.01)	0.08 ( 0.02)	0.00 ( . )	0.04 ( 0.02)
11NOV82	0.00 ( . )	0.09 ( 0.02)	0.02 ( 0.02)	0.02 ( 0.02)	0.00 ( . )
10DEC82	0.00 ( . )	0.01 ( 0.01)	0.00 ( . )	0.00 ( . )	0.00 ( . )
11MAY83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.04 ( 0.04)
31MAY83	0.21 ( 0.09)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.26 ( 0.18)
24JUN83	1.30 ( 0.12)	0.53 ( 0.11)	0.00 ( . )	0.00 ( . )	0.04 ( 0.03)
13JUL83	8.86 ( 0.35)	5.19 ( 1.39)	0.00 ( . )	0.00 ( . )	1.12 ( 0.28)
29JUL83	11.83 ( 1.16)	3.06 ( 0.99)	0.00 ( . )	14.16 ( 5.11)	0.10 ( 0.04)
05AUG83	17.21 ( 5.11)	2.06 ( 0.76)	0.00 ( . )	4.74 ( 1.71)	0.72 ( 0.47)
26AUG83	27.00 ( 17.19)	4.76 ( 3.68)	0.54 ( 0.41)	16.99 ( 3.59)	1.82 ( 1.73)
12SEP83	14.24 ( 5.86)	6.12 ( 2.37)	14.25 ( 5.39)	6.90 ( 4.55)	0.82 ( 0.43)
03OCT83	5.51 ( 3.06)	0.45 ( 0.23)	3.60 ( 1.39)	1.76 ( 0.65)	1.13 ( 0.45)
13OCT83	2.59 ( 0.34)	2.14 ( 0.69)	0.77 ( 0.11)	0.00 ( . )	1.71 ( 0.02)
28OCT83	0.02 ( 0.02)	0.08 ( 0.05)	0.03 ( 0.02)	0.00 ( . )	0.00 ( . )
18NOV83	0.03 ( 0.03)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )

Table A3. (Continued)

DECAPOD CRABS  
SUMMARY OF TOWS AT STATION 5  
MEAN OF 4 353 U COLIQUE TOWS IN NOS PER METER CUBED (STD ERROR)

DATE	Xanthid Crabs	Plinnixa spp	Pinnotheres spp	Uca spp	Pagurid Crabs
23MAY82	0.33 ( 0.19)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.24 ( 0.10)
24MAY82	0.18 ( 0.12)	0.02 ( 0.01)	0.00 ( . )	0.00 ( . )	0.07 ( 0.03)
11JUN82	0.15 ( 0.06)	0.04 ( 0.02)	0.00 ( . )	0.00 ( 0.00)	0.06 ( 0.03)
22JUN82	6.79 ( 3.35)	1.93 ( 1.27)	3.44 ( 1.62)	1.56 ( 0.82)	0.27 ( 0.04)
12JUL82	18.94 ( 2.37)	5.08 ( 0.55)	4.51 ( 2.70)	2.18 ( 0.71)	0.58 ( 0.03)
30JUL82	0.51 ( 0.16)	0.37 ( 0.17)	0.13 ( 0.06)	0.13 ( 0.04)	0.17 ( 0.06)
06AUG82	1.48 ( 0.39)	0.32 ( 0.08)	0.49 ( 0.19)	0.60 ( 0.22)	0.10 ( 0.10)
16AUG82	1.95 ( 0.15)	1.34 ( 0.25)	10.39 ( 6.13)	4.64 ( 2.93)	0.29 ( 0.13)
31AUG82	30.38 ( 10.94)	2.47 ( 0.80)	11.25 ( 3.88)	1.47 ( 0.42)	0.85 ( 0.20)
17SEP82	5.79 ( 1.04)	0.07 ( 0.06)	1.71 ( 1.03)	0.16 ( 0.07)	0.71 ( 0.10)
23SEP82	0.53 ( 0.04)	0.18 ( 0.06)	4.91 ( 1.48)	0.06 ( 0.04)	0.42 ( 0.17)
06OCT82	0.08 ( 0.03)	0.09 ( 0.04)	0.18 ( 0.04)	0.12 ( 0.02)	0.16 ( 0.05)
14OCT82	0.13 ( 0.04)	0.10 ( 0.06)	0.37 ( 0.05)	0.00 ( . )	0.04 ( 0.02)
28OCT82	0.05 ( 0.05)	0.09 ( 0.09)	0.03 ( 0.03)	0.00 ( . )	0.02 ( 0.02)
12NOV82	0.00 ( . )	0.17 ( 0.17)	0.03 ( 0.02)	0.00 ( . )	0.30 ( . )
04DEC82	0.01 ( 0.01)	0.00 ( . )	0.00 ( . )	0.00 ( 0.01)	0.30 ( . )
07FEB83	0.01 ( 0.01)	0.02 ( 0.02)	0.00 ( . )	0.01 ( . )	0.30 ( 0.06)
11APR83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.36 ( 0.11)
26MAY83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.36 ( 0.38)
30MAY83	0.03 ( 0.03)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.62 ( 0.40)
21JUN83	37.52 ( 13.43)	1.13 ( 0.19)	0.07 ( 0.04)	0.42 ( 0.07)	0.73 ( 0.40)
12JUL83	118.26 ( 58.39)	4.17 ( 2.42)	0.01 ( 0.01)	14.26 ( 3.61)	2.87 ( 0.92)
29JUL83	2.42 ( 0.67)	0.68 ( 0.20)	2.21 ( 0.82)	1.41 ( 0.23)	0.89 ( 0.17)
12AUG83	2.09 ( 0.93)	2.14 ( 0.84)	0.00 ( . )	0.66 ( 0.19)	0.17 ( 0.12)
25AUG83	33.41 ( 15.74)	2.34 ( 1.00)	0.38 ( 0.06)	4.20 ( 2.17)	1.54 ( 0.63)
13SEP83	5.93 ( 2.32)	0.58 ( 0.19)	9.92 ( 1.52)	0.23 ( 0.06)	0.31 ( 0.11)
26SEP83	1.49 ( 0.21)	0.42 ( 0.09)	0.69 ( 0.10)	0.00 ( . )	0.06 ( 0.02)
14OCT83	1.27 ( 0.30)	0.00 ( . )	1.39 ( 0.29)	0.00 ( . )	0.03 ( 0.03)
28OCT83	0.04 ( 0.03)	0.00 ( . )	0.08 ( 0.03)	0.00 ( . )	0.30 ( . )
23NOV83	0.01 ( 0.01)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.30 ( . )



Table A3. (Continued)

DECAPOD CRABS  
SUMMARY OF TOWS AT STATION 6  
MEAN OF 4 353 U CBLIQUE TOWS IN NOS PER METER CUBED(STD ERROR)

DATE	Xanthid Crabs	Pinnixa spp	Pinnotheres spp	Uca spp	Pagurid Crabs
29MAY82	0.01 ( 0.01)	0.00 ( 0.00)	0.00 ( . )	0.01 ( 0.01)	0.01 ( 0.01)
11JUN82	0.03 ( 0.02)	0.00 ( . )	0.00 ( . )	0.01 ( 0.01)	0.04 ( 0.01)
22JUN82	0.20 ( 0.12)	0.04 ( 0.02)	0.43 ( 0.43)	0.10 ( 0.07)	0.08 ( 0.03)
12JUL82	14.45 ( 4.43)	3.72 ( 1.16)	2.52 ( 0.43)	0.62 ( 0.15)	0.35 ( 0.09)
31JUL82	4.97 ( 3.43)	0.68 ( 0.41)	16.70 ( 3.95)	0.66 ( 0.28)	0.44 ( 0.18)
06AUG82	6.17 ( 2.67)	1.14 ( 0.20)	0.45 ( 0.33)	4.67 ( 1.95)	0.10 ( 0.02)
19AUG82	0.76 ( 0.61)	0.00 ( . )	0.00 ( . )	0.10 ( 0.10)	0.00 ( . )
31AUG82	7.83 ( 3.85)	0.76 ( 0.28)	9.51 ( 5.83)	0.70 ( 0.17)	0.19 ( 0.09)
20SEP82	0.36 ( 0.15)	0.10 ( 0.03)	1.45 ( 0.25)	0.07 ( 0.02)	0.09 ( 0.03)
23SEP82	1.41 ( 0.01)	0.07 ( 0.03)	0.63 ( 0.34)	0.04 ( 0.01)	0.01 ( 0.01)
06OCT82	0.05 ( 0.02)	0.03 ( 0.02)	1.20 ( 0.37)	0.27 ( 0.06)	0.02 ( 0.01)
14OCT82	0.03 ( 0.02)	0.03 ( 0.01)	0.16 ( 0.08)	0.00 ( . )	0.00 ( . )
28OCT82	0.01 ( 0.01)	0.00 ( . )	0.00 ( . )	0.01 ( 0.01)	0.00 ( . )
12NOV82	0.00 ( . )	0.01 ( 0.01)	0.00 ( . )	0.01 ( 0.01)	0.01 ( 0.01)
07FEB83	0.00 ( . )	0.01 ( 0.01)	0.00 ( . )	0.00 ( . )	0.01 ( 0.01)
06APR83	0.02 ( 0.02)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.02 ( 0.02)
26MAY83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.07 ( 0.03)
30MAY83	0.02 ( 0.02)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.12 ( 0.04)
21JUN83	12.48 ( 1.77)	0.15 ( 0.12)	0.11 ( 0.06)	0.00 ( . )	0.20 ( 0.11)
12JUL83	50.70 ( 21.40)	61.87 ( 20.23)	0.00 ( . )	18.54 ( 2.93)	0.29 ( 0.13)
29JUL83	7.43 ( 2.50)	1.36 ( 0.50)	0.00 ( . )	0.86 ( 0.41)	0.10 ( 0.04)
12AUG83	2.64 ( 0.91)	0.05 ( 0.03)	0.00 ( . )	0.37 ( 0.10)	0.01 ( 0.01)
25AUG83	4.95 ( 0.79)	1.10 ( 0.21)	1.01 ( 0.11)	1.03 ( 0.24)	0.53 ( 0.40)
13SEP83	5.83 ( 1.02)	0.89 ( 0.18)	0.80 ( 0.25)	0.33 ( 0.10)	0.34 ( 0.08)
26SEP83	2.39 ( 1.27)	0.18 ( 0.06)	0.80 ( 0.45)	0.42 ( 0.33)	0.28 ( 0.26)
14OCT83	0.21 ( 0.06)	0.00 ( . )	0.71 ( 0.14)	0.00 ( . )	0.00 ( . )
26OCT83	0.03 ( 0.02)	0.09 ( 0.02)	0.02 ( 0.02)	0.00 ( . )	0.00 ( . )
23NOV83	0.00 ( . )	0.00 ( . )	0.07 ( 0.05)	0.00 ( . )	0.00 ( . )
16DEC83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.07 ( 0.07)	0.00 ( . )

Table A3. (Continued)

DECAPOD CRABS  
SUMMARY OF TOWS AT STATION 7  
MEAN OF 4 353 U BELIQUE TOWS IN NOS PER METER CUBED (STD ERROR)

DATE	Xanthid Crabs	Pinnixa spp	Pinnotheres spp	Uca spp	Pagurid Crabs
23MAY82	0.01 ( 0.01)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.15 ( 0.09)
24MAY82	0.03 ( 0.03)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.31 ( 0.01)
15JUN82	0.27 ( 0.17)	0.59 ( 0.26)	0.83 ( 0.47)	0.05 ( 0.04)	0.31 ( 0.01)
24JUN82	0.40 ( 0.10)	0.03 ( 0.01)	1.96 ( 0.59)	2.02 ( 1.11)	0.31 ( 0.01)
13JUL82	2.33 ( 0.98)	0.14 ( 0.05)	3.18 ( 2.05)	2.71 ( 1.11)	0.39 ( 0.06)
31JUL82	4.54 ( 2.51)	0.39 ( 0.04)	9.87 ( 2.66)	0.85 ( 0.22)	0.12 ( 0.09)
06AUG82	6.70 ( 1.77)	0.07 ( 0.02)	2.65 ( 0.44)	15.88 ( 2.81)	0.18 ( 0.06)
19AUG82	2.24 ( 1.36)	0.53 ( 0.49)	3.14 ( 1.76)	9.73 ( 4.42)	0.32 ( 0.02)
31AUG82	0.26 ( 0.19)	0.01 ( 0.01)	0.49 ( 0.43)	0.49 ( 0.37)	0.32 ( 0.02)
17SEP82	0.24 ( 0.04)	0.04 ( 0.02)	1.60 ( 0.50)	0.13 ( 0.06)	0.35 ( 0.02)
23SEP82	0.21 ( 0.03)	0.00 ( . )	0.45 ( 0.14)	0.10 ( 0.04)	0.18 ( 0.07)
06OCT82	0.01 ( 0.01)	0.25 ( 0.22)	0.21 ( 0.05)	0.02 ( 0.01)	0.39 ( 0.06)
14OCT82	0.01 ( 0.01)	0.03 ( . )	0.06 ( 0.03)	0.00 ( . )	0.30 ( . )
28OCT82	0.00 ( . )	0.01 ( 0.01)	0.00 ( . )	0.00 ( . )	0.30 ( . )
12NOV82	0.01 ( 0.01)	0.01 ( 0.01)	0.00 ( . )	0.00 ( . )	0.30 ( . )
16JAN83	0.06 ( 0.04)	0.01 ( 0.01)	0.00 ( . )	0.00 ( . )	0.30 ( . )
20MAY83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.06 ( 0.03)	0.30 ( . )
30MAY83	0.00 ( . )	0.03 ( . )	0.00 ( . )	0.05 ( 0.03)	0.30 ( . )
21JUN83	2.16 ( 0.58)	0.20 ( . )	0.00 ( . )	0.95 ( 0.46)	0.30 ( . )
12JUL83	19.52 ( 3.28)	0.02 ( 0.02)	0.00 ( . )	98.94 ( 9.85)	0.30 ( . )
29JUL83	7.75 ( 1.95)	0.37 ( 0.17)	0.00 ( . )	8.16 ( 2.16)	0.33 ( 0.03)
12AUG83	9.15 ( 1.10)	0.50 ( 0.18)	0.06 ( 0.06)	10.19 ( 1.68)	0.39 ( 0.05)
25AUG83	1.62 ( 0.69)	0.67 ( 0.24)	0.28 ( 0.06)	1.34 ( 0.51)	0.32 ( 0.02)
13SEP83	0.59 ( 0.17)	0.03 ( 0.03)	0.33 ( 0.14)	0.56 ( 0.14)	0.16 ( 0.10)
26SEP83	0.92 ( 0.17)	0.09 ( 0.04)	0.09 ( 0.04)	0.07 ( 0.04)	0.32 ( 0.02)
14OCT83	0.07 ( 0.04)	0.00 ( . )	0.13 ( 0.00)	0.00 ( . )	0.30 ( . )
26OCT83	0.30 ( . )	0.00 ( . )	0.51 ( 0.28)	0.00 ( . )	0.30 ( . )

Table A3. (Continued)

DECAPOD CRABS  
SUMMARY OF TOWS AT STATION 8  
MEAN OF 4 353 U NEUSTON TOWS IN NOS PER METER CUBED (STD ERROR)

DATE	Xanthid Crabs	Pinnixa spp	Pinnotheres spp	Uca spp	Paquid Crabs
30MAR82	0.00 ( 0.00)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
19MAY82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
30JUN82	0.02 ( 0.01)	0.14 ( 0.05)	0.27 ( 0.26)	0.69 ( 0.20)	0.01 ( 0.00)
22JUL82	0.02 ( 0.01)	0.00 ( . )	0.00 ( . )	0.00 ( 0.00)	0.00 ( 0.00)
12AUG82	0.09 ( 0.03)	0.41 ( 0.12)	0.06 ( 0.04)	2.50 ( 1.95)	0.07 ( 0.02)
05SEP82	0.01 ( 0.00)	0.20 ( 0.02)	0.20 ( 0.05)	14.44 ( 1.99)	0.52 ( 0.07)
20OCT82	0.01 ( 0.00)	0.08 ( 0.02)	0.00 ( 0.00)	0.00 ( . )	0.01 ( 0.01)
16NOV82	0.00 ( . )	0.02 ( 0.01)	0.00 ( . )	0.00 ( . )	0.01 ( 0.00)
30NOV82	0.00 ( . )	0.10 ( 0.04)	0.00 ( . )	0.00 ( . )	0.01 ( 0.01)
26JAN83	0.00 ( . )	0.00 ( 0.00)	0.00 ( . )	0.00 ( . )	0.00 ( . )
05FEB83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( 0.00)
19MAY83	0.00 ( . )	0.00 ( . )	0.14 ( 0.14)	0.01 ( 0.01)	0.01 ( 0.01)
16JUN83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.34 ( 0.28)	0.00 ( . )
08JUL83	0.15 ( 0.14)	0.00 ( . )	0.00 ( . )	0.06 ( 0.04)	0.04 ( 0.02)
20SEP83	0.01 ( 0.01)	0.06 ( 0.04)	0.00 ( . )	0.00 ( 0.00)	0.00 ( 0.00)
22OCT83	0.00 ( . )	0.02 ( 0.01)	0.00 ( . )	0.00 ( . )	0.00 ( . )
23NOV83	0.02 ( 0.02)	0.00 ( 0.00)	0.00 ( . )	0.01 ( 0.01)	0.00 ( . )

Table A3. (Continued)

NECAPCO CRABS  
SUMMARY OF TOWS AT STATION 8  
MEAN OF 4 353 U OBLIQUE TOWS IN NOS PER METER CUBED (STD ERROR)

DATE	Xanthid Crabs	Pinnixa spp	Pinnotheres spp	Uca spp	Pagurid Crabs
19MAY82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.89 ( 0.42)
30JUN82	0.06 ( 0.03)	3.35 ( 0.63)	0.02 ( 0.01)	0.87 ( 0.33)	0.37 ( 0.18)
22JUL82	0.12 ( 0.06)	0.04 ( 0.02)	0.04 ( 0.04)	0.11 ( 0.07)	0.54 ( 0.15)
12AUG82	4.60 ( 0.84)	23.43 ( 5.79)	6.82 ( 2.50)	27.89 ( 8.57)	8.12 ( 4.00)
09SEP82	1.29 ( 0.62)	3.61 ( 0.77)	2.01 ( 0.69)	159.67 ( 62.88)	16.30 ( 6.12)
20OCT82	0.11 ( 0.05)	0.64 ( 0.23)	0.05 ( 0.02)	0.02 ( 0.01)	0.32 ( 0.11)
18NOV82	0.00 ( . )	0.04 ( 0.04)	0.00 ( . )	0.00 ( . )	0.02 ( 0.02)
30NOV82	0.00 ( . )	0.04 ( 0.02)	0.00 ( . )	0.00 ( . )	0.04 ( 0.02)
26JAN83	0.03 ( . )	0.02 ( 0.02)	0.00 ( . )	0.01 ( 0.01)	0.01 ( 0.01)
30MAR83	0.02 ( 0.02)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
15MAY83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.02 ( 0.01)	0.24 ( 0.06)
16JUN83	0.04 ( 0.04)	0.02 ( 0.02)	0.00 ( . )	2.36 ( 1.18)	1.04 ( 0.34)
09JUL83	0.29 ( 0.19)	0.00 ( . )	0.00 ( . )	0.26 ( 0.09)	1.43 ( 0.30)
11AUG83	0.02 ( 0.02)	0.32 ( 0.17)	0.00 ( . )	1.71 ( 0.65)	1.04 ( 0.45)
26SEP83	2.40 ( 0.43)	2.19 ( 0.64)	0.90 ( 0.29)	0.01 ( 0.01)	0.36 ( 0.17)
02NOV83	0.00 ( . )	0.47 ( 0.19)	0.00 ( . )	0.00 ( . )	0.10 ( 0.04)
23NOV83	0.00 ( . )	0.02 ( 0.02)	0.00 ( . )	0.03 ( 0.03)	0.00 ( . )

Table A3. (Continued)

DECAPOD CRABS  
SUMMARY OF TONS AT STATION 9  
YEAR: OF 4 353 U NEUSTON TONS IN NOS PER METER CUBED (STD ERROR)

DATE	Xanthid Crabs	Pinnixa spp	Pinnotheres spp	Uca spp	Pagurid Crabs
15MAY82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.04 ( 0.03)
30JUN82	0.13 ( 0.07)	0.52 ( 0.18)	0.00 ( . )	0.44 ( 0.16)	0.37 ( 0.09)
22JUL82	0.01 ( 0.02)	0.00 ( 0.00)	0.00 ( . )	14.83 ( 7.52)	0.02 ( 0.01)
12AUG82	0.00 ( . )	0.11 ( 0.06)	0.00 ( . )	10.30 ( 3.95)	0.25 ( 0.13)
05SEP82	0.20 ( 0.05)	0.29 ( 0.07)	0.01 ( 0.00)	0.45 ( 0.07)	0.22 ( 0.08)
20OCT82	0.02 ( 0.01)	1.49 ( 0.22)	0.00 ( . )	0.00 ( . )	0.05 ( 0.04)
18NOV82	0.00 ( . )	0.00 ( 0.00)	0.00 ( . )	0.00 ( . )	0.00 ( 0.00)
30NOV82	0.00 ( . )	0.00 ( 0.00)	0.00 ( . )	0.00 ( . )	0.00 ( . )
04FEB83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( 0.00)
15MAY83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.01 ( 0.01)	0.11 ( 0.05)
16JUN83	0.00 ( 0.00)	0.00 ( . )	0.00 ( . )	3.36 ( 0.99)	0.01 ( 0.01)
06JUL83	0.34 ( 0.16)	0.01 ( 0.01)	0.00 ( . )	5.22 ( 2.86)	0.24 ( 0.13)
11AUG83	0.01 ( 0.01)	0.00 ( . )	0.00 ( . )	0.34 ( 0.23)	0.02 ( 0.02)
20SEP83	0.00 ( 0.00)	0.00 ( . )	0.01 ( 0.01)	0.00 ( . )	0.00 ( . )
02NOV83	0.00 ( . )	0.00 ( 0.00)	0.00 ( . )	0.00 ( . )	0.00 ( . )
10DEC83	0.00 ( . )	0.01 ( 0.01)	0.00 ( . )	0.00 ( . )	0.00 ( . )

Table A3. (Continued)

DECAPOD CRABS  
SUMMARY OF TCWS AT STATION 9  
MEAN OF 4 353 U CALIBRATED TCWS IN MPS PER METER CUBED (STD ERROR)

DATE	Xanthid Crabs	Pinnixa spp	Pinnotheres spp	Uca spp	Pagurid Crabs
17MAR82	0.00 ( . )	0.06 ( 0.06 )	0.00 ( . )	0.00 ( . )	0.00 ( . )
30MAR82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
19MAY82	0.03 ( 0.03 )	0.03 ( 0.02 )	0.00 ( . )	0.00 ( . )	10.36 ( 1.06 )
30JUN82	1.09 ( 0.08 )	57.09 ( 5.44 )	0.00 ( . )	1.00 ( 0.18 )	0.70 ( 0.18 )
22JUL82	0.05 ( 0.05 )	0.25 ( 0.14 )	0.00 ( . )	66.69 ( 19.92 )	1.73 ( 0.85 )
12AUG82	2.57 ( 0.35 )	2.84 ( 0.36 )	0.13 ( 0.13 )	26.56 ( 3.21 )	6.17 ( 1.20 )
09SEP82	3.27 ( 0.56 )	0.72 ( 0.25 )	0.15 ( 0.12 )	5.71 ( 0.51 )	6.30 ( 1.28 )
20OCT82	0.31 ( 0.04 )	1.22 ( 0.14 )	0.02 ( 0.01 )	0.00 ( . )	0.98 ( 0.22 )
18NOV82	0.02 ( 0.01 )	0.07 ( 0.03 )	0.01 ( 0.01 )	0.00 ( . )	0.02 ( 0.01 )
24NOV82	0.00 ( . )	0.09 ( 0.03 )	0.00 ( . )	0.00 ( . )	0.00 ( . )
30NOV82	0.00 ( . )	0.04 ( 0.02 )	0.00 ( . )	0.00 ( . )	0.00 ( . )
22DEC82	0.00 ( . )	0.01 ( 0.01 )	0.00 ( . )	0.00 ( . )	0.00 ( . )
27APR83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
14MAY83	0.03 ( 0.03 )	0.00 ( . )	0.00 ( . )	0.21 ( 0.02 )	1.37 ( 0.51 )
16JUN83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	7.24 ( 1.94 )
6JUL83	0.90 ( 0.40 )	0.10 ( 0.04 )	0.00 ( . )	4.36 ( 1.78 )	0.07 ( 0.04 )
20JUL83	4.95 ( 1.35 )	2.29 ( 0.49 )	1.72 ( 0.95 )	3.89 ( 1.08 )	2.18 ( 0.53 )
11AUG83	0.01 ( 0.01 )	0.13 ( 0.07 )	0.01 ( 0.01 )	14.83 ( 8.17 )	19.71 ( 4.02 )
20AUG83	27.01 ( 13.01 )	176.10 ( 26.87 )	5.01 ( 1.32 )	61.45 ( 36.26 )	0.16 ( 0.08 )
20SEP83	0.06 ( 0.04 )	0.22 ( 0.11 )	0.38 ( 0.14 )	203.61 ( 69.54 )	44.54 ( 10.18 )
03OCT83	0.00 ( . )	1.23 ( 0.16 )	0.25 ( 0.11 )	0.01 ( 0.01 )	0.15 ( 0.09 )
02NOV83	0.00 ( . )	0.04 ( 0.06 )	0.00 ( . )	0.13 ( 0.05 )	3.78 ( 0.34 )
18NOV83	0.01 ( 0.01 )	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.02 ( 0.02 )
23NOV83	0.00 ( . )	0.06 ( 0.03 )	0.00 ( . )	0.00 ( . )	0.00 ( . )

Table A3. (Continued)

DECAPOD CRABS						
SUMMARY OF TCMS AT STATION 10						
MEAN OF 4 353 U NEUSTON TOWS IN NOS PER METER CUBED(STD ERROR)						
DATE	Xanthid Crabs	Pinnixa spp	Pinnotheres spp	Uca spp	Paquid Crabs	
30JUN82	0.82 ( 0.17)	0.03 ( 0.03)	0.06 ( 0.03)	1.16 ( 0.18)	0.01 ( 0.01)	
22JUL82	2.32 ( 0.55)	0.62 ( 0.37)	1.01 ( 0.59)	15.54 ( 8.39)	0.17 ( 0.11)	
12AUG82	0.03 ( 0.03)	0.00 ( . )	0.03 ( 0.02)	0.61 ( 0.16)	0.00 ( 0.00)	
05SEP82	0.25 ( 0.06)	0.03 ( 0.01)	0.01 ( 0.01)	0.91 ( 0.22)	0.27 ( 0.07)	
30NOV82	0.00 ( 0.00)	0.09 ( 0.06)	0.00 ( . )	0.00 ( . )	0.02 ( 0.02)	
30MAR83	0.00 ( . )	0.00 ( 0.00)	0.00 ( . )	0.00 ( . )	0.00 ( . )	
10JUN83	0.01 ( 0.01)	0.00 ( . )	0.00 ( . )	0.02 ( 0.01)	0.00 ( . )	
06JUL83	0.13 ( 0.08)	0.00 ( 0.00)	0.01 ( 0.01)	0.00 ( 0.00)	0.00 ( . )	
11AUG83	0.09 ( 0.08)	0.00 ( . )	0.00 ( . )	0.30 ( 0.17)	0.00 ( 0.00)	
20SEP83	0.02 ( 0.01)	0.00 ( . )	0.01 ( 0.00)	0.00 ( . )	0.01 ( 0.01)	
02NOV83	0.00 ( . )	0.00 ( 0.00)	0.00 ( . )	0.00 ( . )	0.00 ( . )	

Table A3. (Continued)

DECAPOD CRABS  
SUMMARY OF TOWS AT STATION 10  
MEAN OF 4 353 U OBLIQUE TOWS IN NOS PER METER CUBED (STD ERROR)

DATE	Xanthid Crabs	Pinnixa spp	Pinnotheres spp	Uca spp	Pagurid Crabs
19MAY82	0.03 ( 0.03)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.18 ( 0.18)
30JUN82	1.75 ( 0.24)	2.56 ( 0.99)	1.69 ( 0.75)	3.39 ( 1.24)	6.47 ( 2.37)
22JUL82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.22 ( 0.22)
20AUG82	0.07 ( 0.07)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
15MAY83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	2.06 ( 0.46)
10JUN83	1.69 ( 0.56)	0.03 ( 0.03)	0.00 ( . )	2.37 ( 1.54)	8.49 ( 6.82)
08JUL83	3.61 ( 0.37)	0.35 ( 0.15)	0.00 ( . )	0.17 ( 0.17)	0.59 ( 0.21)
11AUG83	1.96 ( 0.52)	13.56 ( 7.57)	15.34 ( 7.40)	20.21 ( 6.91)	3.21 ( 1.70)
20SEP83	1.31 ( 0.30)	1.12 ( 0.32)	1.89 ( 0.46)	0.00 ( . )	1.54 ( 0.24)
02NOV83	0.01 ( 0.01)	0.05 ( 0.01)	0.00 ( . )	0.00 ( . )	0.03 ( 0.02)
15NOV83	0.02 ( 0.02)	0.15 ( 0.02)	0.00 ( . )	0.00 ( . )	0.33 ( 0.12)
11DEC83	0.00 ( . )	0.01 ( 0.01)	0.00 ( . )	0.00 ( . )	0.02 ( 0.02)



Table A3. (Continued)

DECAPOD CRABS  
SUMMARY OF TOWS AT STATION DS  
MEAN OF 4 353 U NEUSTON TOWS IN NOS PER METER CUBED(STD ERROR)

DATE	Xanthid Crabs	Pinnixa spp	Pinnotheres spp	Uca spp	Pagurid Crabs
11MAY82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( 0.00)
29JUN82	0.01 ( 0.01)	0.00 ( . )	0.00 ( 0.00)	1.09 ( 0.34)	0.29 ( 0.07)
21JUL82	0.63 ( 0.20)	0.02 ( 0.01)	0.01 ( 0.01)	2.64 ( 0.66)	0.36 ( 0.03)
11AUG82	0.01 ( 0.01)	0.00 ( . )	0.00 ( 0.00)	5.84 ( 5.03)	0.30 ( 0.00)
08SEP82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.48 ( 0.37)	0.30 ( . )
19OCT82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.70 ( 0.26)
17NOV82	0.00 ( 0.00)	0.01 ( 0.01)	0.00 ( . )	0.00 ( . )	0.30 ( . )
30NOV82	0.01 ( 0.01)	0.01 ( 0.01)	0.00 ( . )	0.00 ( . )	0.31 ( 0.01)
08FEB83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.31 ( 0.00)
14JUN83	0.03 ( 0.02)	0.00 ( . )	0.00 ( . )	0.46 ( 0.20)	0.01 ( 0.01)
07JUL83	0.00 ( . )	0.00 ( . )	0.00 ( . )	75.25 (27.24)	0.30 ( . )
10AUG83	0.00 ( . )	0.00 ( . )	0.00 ( 0.00)	0.00 ( . )	0.00 ( . )
14SEP83	0.01 ( 0.01)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.04 ( 0.02)
10DEC83	0.00 ( . )	0.00 ( 0.00)	0.00 ( . )	0.01 ( 0.01)	0.30 ( . )

Table A3 (Continued)

DECAPOD CRABS  
SUMMARY OF TONS AT STATION DS  
MEAN OF 4 353 U COLIQUE TONS IN 1.05 PER METER CUBED(STD ERROR)

DATE	Xanthid Crabs	Pinnixa spp	Pinnotheres spp	Uca spp	Pagurid Crabs
21APR82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.02 ( 0.02)
18MAY82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( 0.00)
24JUN82	0.19 ( 0.05)	0.00 ( . )	0.09 ( 0.02)	0.37 ( 0.15)	0.57 ( 0.08)
21JUL82	0.45 ( 0.26)	0.04 ( 0.02)	0.01 ( 0.01)	0.50 ( 0.11)	0.62 ( 0.28)
11AUG82	0.04 ( 0.02)	0.00 ( . )	0.00 ( . )	1.00 ( 0.14)	4.20 ( 1.09)
06SEP82	0.12 ( 0.07)	0.00 ( . )	0.14 ( 0.13)	0.25 ( 0.04)	1.27 ( 0.33)
19OCT82	0.00 ( . )	0.02 ( 0.01)	0.00 ( . )	0.00 ( . )	9.18 ( 0.22)
17NOV82	0.00 ( . )	0.03 ( 0.03)	0.00 ( . )	0.00 ( . )	0.63 ( 0.29)
30NOV82	0.00 ( . )	0.26 ( 0.14)	0.01 ( 0.01)	0.01 ( 0.01)	0.47 ( 0.28)
08DEC82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.02 ( 0.02)
29MAR83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.06 ( 0.05)
23APR83	0.00 ( . )	0.01 ( 0.01)	0.00 ( . )	0.00 ( . )	0.22 ( 0.08)
10MAY83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.25 ( 0.13)
14JUN83	0.01 ( 0.01)	0.00 ( . )	0.00 ( . )	0.08 ( 0.03)	0.14 ( 0.08)
07JUL83	0.27 ( 0.27)	0.12 ( 0.12)	0.08 ( 0.03)	2.56 ( 0.81)	0.33 ( 0.01)
10AUG83	0.02 ( 0.02)	0.00 ( . )	0.00 ( . )	0.02 ( 0.02)	0.15 ( 0.04)
19SEP83	0.12 ( 0.12)	0.12 ( 0.12)	0.12 ( 0.12)	0.00 ( . )	4.89 ( 0.51)
16OCT83	0.00 ( . )	0.01 ( 0.01)	0.00 ( . )	0.05 ( 0.04)	0.31 ( 0.01)

Table A3. (Continued)

SHRIMP  
SUMMARY OF TONS AT STATION 1  
MEAN OF 4 353 U OBLIQUE TONS IN NOS PER METER CUBED(STD ERROR)

DATE	Crangon Septemspinosa	Lucifer faxoni	Mysidopsis bigelowi	Neomysis americana	Callinassa spp
16FEB82	24.58 ( 4.39)	0.00 ( . )	1.14 ( 1.14)	3.59 ( 2.67)	0.00 ( . )
09MAR82	0.39 ( 0.07)	0.00 ( . )	1.05 ( 0.22)	0.23 ( 0.08)	0.00 ( . )
03APR82	18.97 ( 2.46)	0.00 ( . )	0.00 ( 0.00)	0.00 ( . )	0.00 ( . )
30APR82	2.70 ( 1.11)	0.00 ( . )	0.05 ( 0.02)	0.31 ( 0.07)	0.00 ( . )
24MAY82	157.19 ( 90.32)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
30MAY82	70.01 ( 14.82)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
08JUN82	11.15 ( 0.12)	0.00 ( . )	0.00 ( . )	0.00 ( 0.00)	0.00 ( . )
21JUN82	6.86 ( 2.19)	0.00 ( . )	0.01 ( 0.01)	0.01 ( 0.01)	0.02 ( 0.01)
12JUL82	15.89 ( 1.13)	0.02 ( . )	0.00 ( . )	0.23 ( 0.04)	0.41 ( 0.16)
30JUL82	1.77 ( 0.12)	0.01 ( 0.01)	0.00 ( . )	0.25 ( 0.04)	0.42 ( 0.05)
04AUG82	0.46 ( 0.11)	0.86 ( 0.23)	0.16 ( 0.10)	0.51 ( 0.26)	0.26 ( 0.12)
18AUG82	1.09 ( 0.24)	2.13 ( 0.25)	1.03 ( 0.64)	1.20 ( 0.63)	9.69 ( 2.20)
30AUG82	0.02 ( 0.01)	0.60 ( 0.34)	0.00 ( . )	0.04 ( 0.04)	0.00 ( . )
16SEP82	0.11 ( 0.08)	10.10 ( 6.28)	0.57 ( 0.57)	0.43 ( 0.38)	0.27 ( 0.22)
24SEP82	0.23 ( 0.15)	1.55 ( 0.39)	0.00 ( 0.00)	13.81 ( 2.00)	0.51 ( 0.08)
07OCT82	0.09 ( 0.06)	0.56 ( 0.14)	10.63 ( 1.75)	0.57 ( 0.57)	2.91 ( 0.65)
15OCT82	0.09 ( 0.04)	0.28 ( 0.06)	2.76 ( 0.97)	0.01 ( 0.01)	0.18 ( 0.03)
29OCT82	1.12 ( 0.20)	0.05 ( 0.02)	4.60 ( 0.54)	2.46 ( 2.46)	0.02 ( 0.01)
11NOV82	1.09 ( 0.61)	0.00 ( . )	4.75 ( 2.36)	2.84 ( 1.96)	0.01 ( 0.01)
24NOV82	0.30 ( 0.03)	0.01 ( 0.01)	1.48 ( 1.48)	2.84 ( 0.38)	0.02 ( 0.02)
10DEC82	0.04 ( 0.01)	0.01 ( 0.01)	0.54 ( 0.46)	0.11 ( 0.11)	0.00 ( . )
21DEC82	0.39 ( 0.04)	0.00 ( . )	0.01 ( 0.01)	0.00 ( 0.00)	0.00 ( . )
24JAN83	3.66 ( 0.27)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
31JAN83	8.63 ( 1.15)	0.00 ( . )	0.02 ( 0.01)	0.08 ( 0.04)	0.00 ( . )
09FEB83	13.37 ( 1.48)	0.00 ( . )	0.06 ( 0.04)	0.02 ( 0.01)	0.00 ( . )
21FEB83	11.05 ( 0.43)	0.00 ( . )	0.04 ( 0.03)	0.00 ( . )	0.00 ( . )
10MAR83	1.37 ( 0.23)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
28MAR83	91.74 ( 7.35)	0.00 ( . )	0.22 ( 0.12)	1.58 ( 0.48)	0.00 ( . )
11APR83	32.55 ( 10.21)	0.00 ( . )	0.05 ( 0.04)	0.38 ( 0.15)	0.00 ( . )
27APR83	73.83 ( 8.05)	0.00 ( . )	0.19 ( 0.19)	0.00 ( . )	0.00 ( . )
11MAY83	38.30 ( 3.43)	0.00 ( . )	0.00 ( . )	0.18 ( 0.11)	0.00 ( . )
31MAY83	88.42 ( 15.28)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
24JUN83	5.72 ( 2.45)	0.00 ( . )	0.00 ( . )	0.09 ( 0.06)	0.05 ( 0.05)
13JUL83	107.69 ( 42.53)	0.00 ( . )	2.29 ( 2.14)	1.79 ( 0.80)	7.48 ( 3.18)
28JUL83	33.63 ( 3.54)	0.00 ( . )	0.75 ( 0.35)	0.00 ( . )	1.17 ( 0.59)
09AUG83	2.16 ( 0.46)	0.08 ( 0.06)	0.57 ( 0.09)	1.25 ( 0.63)	7.34 ( 0.62)
26AUG83	1.21 ( 0.33)	4.58 ( 1.05)	6.80 ( 3.64)	2.16 ( 1.24)	3.91 ( 1.86)
12SEP83	0.66 ( 0.13)	10.00 ( 3.43)	1.07 ( 0.27)	0.00 ( . )	0.32 ( 0.10)
03OCT83	0.01 ( 0.01)	1.08 ( 0.12)	5.50 ( 3.15)	1.93 ( 1.15)	0.24 ( 0.08)
13OCT83	0.01 ( 0.01)	15.89 ( 11.25)	21.17 ( 14.35)	1.39 ( 1.08)	0.11 ( 0.03)
01NOV83	0.34 ( 0.18)	0.24 ( 0.16)	3.58 ( 1.76)	1.28 ( 0.70)	0.00 ( . )
19NOV83	1.42 ( 0.86)	0.18 ( 0.04)	0.01 ( 0.01)	4.29 ( 0.40)	0.01 ( 0.01)
11DEC83	0.29 ( 0.06)	0.14 ( 0.05)	0.13 ( 0.05)	0.07 ( 0.06)	0.00 ( . )

Table A3 (Continued)

SHRIMP  
SUMMARY OF TOWS AT STATION 2  
MEAN OF 4 353 U CALIQUE TOWS IN NOS PER METER CUBED(STD ERROR)

DATE	Crangon Septemspinosa	Lucifer faxoni	Mysidopsis bigelowi	Neomysis americana	Callinassa spp
16FEB82	5.76 ( 0.89)	0.00 ( . )	0.00 ( .29)	0.08 ( 0.04)	0.00 ( . )
09MAR82	13.15 ( 1.34)	0.00 ( . )	0.62 ( 0.29)	0.08 ( 0.07)	0.00 ( . )
22APR82	123.57 ( 26.96)	0.00 ( . )	0.11 ( 0.07)	0.05 ( 0.03)	0.00 ( . )
29APR82	187.19 ( 67.91)	0.00 ( . )	0.32 ( 0.17)	2.25 ( 0.43)	0.00 ( . )
24MAY82	18.78 ( 3.32)	0.00 ( . )	0.00 ( . )	0.24 ( 0.20)	0.00 ( . )
30MAY82	4.74 ( 1.59)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
08JUN82	0.58 ( 0.26)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
21JUN82	1.68 ( 0.76)	0.00 ( . )	0.00 ( . )	0.01 ( 0.01)	0.92 ( 3.14)
12JUL82	1.80 ( 0.09)	0.03 ( 0.01)	0.00 ( . )	0.40 ( 0.15)	18.86 ( 13.24)
30JUL82	1.56 ( 0.40)	0.03 ( 0.02)	0.00 ( . )	6.38 ( 0.93)	10.98 ( 3.66)
04AUG82	7.62 ( 1.55)	0.53 ( 0.29)	0.68 ( 0.68)	1.61 ( 0.47)	2.58 ( 3.41)
18AUG82	0.37 ( 0.23)	0.30 ( 0.08)	0.02 ( 0.02)	0.07 ( 0.06)	4.27 ( 3.75)
30AUG82	0.17 ( 0.06)	0.57 ( 0.07)	0.03 ( 0.03)	1.50 ( 0.18)	1.69 ( 0.26)
16SEP82	0.03 ( 0.03)	1.40 ( 0.71)	0.00 ( . )	9.51 ( 5.81)	0.75 ( 3.42)
24SEP82	0.19 ( 0.09)	0.78 ( 0.19)	0.09 ( 0.09)	14.90 ( 4.70)	0.01 ( 0.01)
07OCT82	0.79 ( 0.42)	0.48 ( 0.16)	10.24 ( 0.12)	0.00 ( . )	0.21 ( 3.07)
15OCT82	0.02 ( 0.01)	0.29 ( 0.05)	4.29 ( 0.47)	0.58 ( 0.05)	0.15 ( 0.04)
25OCT82	0.53 ( 0.16)	0.04 ( 0.02)	0.09 ( 0.04)	0.39 ( 0.04)	0.00 ( . )
11NOV82	0.78 ( 0.32)	0.00 ( . )	10.79 ( 4.89)	61.80 ( 13.45)	0.04 ( 3.04)
24NOV82	0.14 ( 0.03)	0.00 ( . )	0.00 ( . )	0.91 ( 0.90)	0.00 ( . )
10DEC82	0.13 ( 0.10)	0.00 ( . )	0.79 ( 0.40)	5.41 ( 1.59)	0.00 ( . )
22DEC82	6.72 ( 0.85)	0.00 ( . )	0.00 ( . )	0.01 ( 0.01)	0.00 ( . )
31JAN83	3.49 ( 0.22)	0.00 ( . )	0.00 ( . )	0.02 ( 0.01)	0.00 ( . )
09FEB83	13.32 ( 0.95)	0.00 ( . )	0.01 ( 0.01)	0.00 ( . )	0.00 ( . )
21FEB83	0.90 ( 0.15)	0.00 ( . )	0.02 ( 0.02)	0.00 ( . )	0.00 ( . )
10MAR83	4.14 ( 0.19)	0.00 ( . )	0.00 ( . )	0.01 ( 0.01)	0.00 ( . )
28MAR83	36.45 ( 6.27)	0.00 ( . )	0.00 ( . )	0.23 ( 0.15)	0.00 ( . )
11APR83	34.15 ( 2.49)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
27APR83	37.94 ( 3.93)	0.00 ( . )	0.02 ( 0.02)	0.75 ( 0.16)	0.00 ( . )
11MAY83	112.91 ( 17.91)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
31MAY83	22.44 ( 2.28)	0.00 ( . )	0.00 ( . )	0.77 ( 0.77)	0.00 ( . )
24JUN83	4.56 ( 1.78)	0.00 ( . )	0.00 ( . )	9.76 ( 9.53)	0.00 ( . )
13JUL83	0.94 ( 0.21)	0.00 ( . )	0.00 ( . )	0.00 ( . )	1.85 ( 3.52)
28JUL83	2.47 ( 0.57)	0.00 ( . )	0.02 ( 0.02)	0.06 ( 0.06)	2.42 ( 3.64)
04AUG83	0.03 ( 0.03)	0.04 ( 0.02)	1.56 ( 0.83)	6.99 ( 3.03)	9.78 ( 3.82)
26AUG83	0.10 ( 0.08)	0.05 ( 0.02)	0.00 ( . )	0.17 ( 0.17)	0.35 ( 3.13)
12SEP83	0.03 ( 0.03)	2.07 ( 0.32)	10.16 ( 1.12)	1.47 ( 0.95)	1.71 ( 3.16)
03OCT83	0.13 ( 0.06)	1.00 ( 0.10)	0.49 ( 0.11)	1.59 ( 0.10)	0.00 ( . )
13OCT83	0.07 ( 0.07)	0.70 ( 0.09)	1.33 ( 0.30)	3.92 ( 0.77)	0.00 ( . )
28OCT83	0.14 ( 0.07)	0.30 ( 0.07)	1.01 ( 0.10)	15.38 ( 2.22)	0.02 ( 3.02)
18NOV83	0.63 ( 0.26)	0.02 ( 0.02)	0.02 ( 0.01)	0.73 ( 0.43)	0.00 ( . )
02DEC83	0.21 ( 0.04)	0.11 ( 0.08)	0.00 ( . )	1.59 ( 0.75)	0.00 ( . )

Table A3. (Continued)

SHRIMP  
SUMMARY OF TONS AT STATION 3  
MEAN OF 4 353 U OBLIQUE TONS IN NOS PER METER CUBED(1STD ERROR)

DATE	Crangon Septemspinosa	Lucifer faxoni	Mysidopsis bigelowi	Neomysis americana	Callinassa spp
16FEB82	9.06 ( 3.75)	0.00 ( . )	0.01 ( 0.01)	0.21 ( 0.16)	0.00 ( . )
04MAR82	16.05 ( 5.68)	0.00 ( . )	0.51 ( 0.28)	0.21 ( 0.08)	0.00 ( . )
22APR82	203.11 ( 64.02)	0.00 ( . )	0.05 ( 0.04)	0.07 ( 0.05)	0.00 ( . )
29APR82	26.78 ( 8.62)	0.00 ( . )	0.00 ( 0.00)	0.26 ( 0.10)	0.00 ( . )
24MAY82	98.79 ( 20.63)	0.00 ( . )	0.00 ( . )	0.02 ( 0.02)	0.00 ( . )
30MAY82	22.41 ( 6.57)	0.00 ( . )	0.00 ( . )	0.00 ( 0.00)	0.00 ( . )
08JUN82	8.24 ( 4.63)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.26 ( 0.26)
21JUN82	2.97 ( 2.89)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.52 ( 0.32)
12JUL82	0.09 ( 0.04)	0.00 ( . )	0.00 ( . )	0.00 ( . )	1.65 ( 0.41)
30JUL82	0.40 ( 0.20)	0.04 ( 0.03)	0.00 ( . )	1.30 ( 0.20)	18.47 ( 7.06)
18AUG82	0.74 ( 0.33)	1.06 ( 0.80)	0.00 ( . )	0.53 ( 0.26)	17.57 ( 5.02)
30AUG82	0.01 ( 0.01)	1.14 ( 0.22)	0.07 ( 0.04)	5.90 ( 0.55)	2.26 ( 0.12)
16SEP82	0.02 ( 0.02)	1.41 ( 0.36)	27.76 ( 13.56)	3.40 ( 1.86)	6.78 ( 3.10)
24SEP82	0.25 ( 0.25)	0.24 ( 0.24)	0.00 ( . )	0.53 ( 0.53)	0.07 ( 0.07)
07OCT82	0.32 ( 0.29)	0.32 ( 0.05)	0.38 ( 0.17)	0.00 ( . )	0.02 ( 0.01)
15OCT82	0.20 ( 0.07)	0.22 ( 0.07)	0.00 ( . )	0.80 ( 0.23)	0.02 ( 0.01)
11NOV82	0.97 ( 0.12)	0.03 ( 0.02)	1.87 ( 1.63)	8.90 ( 3.03)	0.00 ( . )
24NOV82	0.40 ( 0.07)	0.01 ( 0.01)	0.00 ( . )	4.49 ( 3.09)	0.00 ( . )
10DEC82	0.42 ( 0.19)	0.00 ( . )	0.18 ( 0.17)	1.87 ( 0.97)	0.00 ( . )
22DEC82	0.28 ( 0.08)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
31JAN83	9.17 ( 1.58)	0.00 ( . )	0.47 ( 0.10)	1.23 ( 0.48)	0.00 ( . )
09FEB83	25.57 ( 3.97)	0.00 ( . )	0.05 ( 0.02)	0.00 ( . )	0.00 ( . )
21FEB83	9.00 ( 0.47)	0.00 ( . )	0.12 ( 0.04)	0.19 ( 0.10)	0.00 ( . )
10MAR83	11.43 ( 2.36)	0.00 ( . )	0.08 ( 0.05)	0.08 ( 0.05)	0.00 ( . )
28MAR83	47.88 ( 7.33)	0.00 ( . )	0.01 ( 0.01)	0.00 ( . )	0.00 ( . )
11APR83	24.69 ( 2.72)	0.00 ( . )	0.01 ( 0.01)	1.21 ( 1.10)	0.00 ( . )
27APR83	28.95 ( 1.38)	0.00 ( . )	0.00 ( . )	0.06 ( 0.02)	0.00 ( . )
11MAY83	87.42 ( 18.30)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
31MAY83	20.06 ( 1.08)	0.00 ( . )	0.00 ( . )	0.01 ( 0.01)	0.00 ( . )
24JUN83	11.90 ( 1.21)	0.00 ( . )	0.00 ( . )	0.10 ( 0.02)	0.02 ( 0.02)
13JUL83	1.07 ( 0.32)	0.00 ( . )	0.02 ( 0.02)	0.00 ( . )	2.24 ( 0.86)
28JUL83	0.01 ( 0.01)	0.01 ( 0.01)	0.00 ( . )	0.11 ( 0.08)	1.52 ( 0.33)
09AUG83	0.13 ( 0.04)	0.01 ( 0.01)	1.21 ( 0.54)	1.11 ( 0.34)	7.34 ( 2.54)
26AUG83	0.00 ( . )	0.78 ( 0.31)	2.61 ( 0.53)	1.73 ( 0.45)	0.48 ( 0.22)
12SEP83	0.00 ( . )	78.10 ( 67.83)	136.30 ( 116.56)	3.69 ( 3.06)	10.89 ( 3.17)
03OCT83	0.04 ( 0.04)	0.76 ( 0.25)	0.02 ( 0.02)	4.06 ( 0.59)	0.00 ( . )
13OCT83	0.19 ( 0.07)	0.72 ( 0.19)	0.04 ( 0.04)	23.70 ( 4.26)	0.00 ( . )
28OCT83	0.30 ( 0.15)	0.12 ( 0.02)	0.00 ( . )	0.99 ( 0.87)	0.00 ( . )
29OCT83	0.63 ( 0.15)	0.15 ( 0.04)	3.57 ( 0.67)	9.35 ( 4.95)	0.00 ( . )
18NOV83	0.31 ( 0.03)	0.00 ( . )	0.00 ( . )	0.05 ( 0.02)	0.00 ( . )
02DEC83	2.76 ( 1.56)	0.07 ( 0.07)	0.00 ( . )	0.34 ( 0.15)	0.00 ( . )

Table A3. (Continued)

SHRIMP  
SUMMARY OF TOWS AT STATION 4  
MEAN OF 4 353 U OBLIQUE TOWS IN NOS PER METER CUBED (STD ERROR)

DATE	Crangon Septemspinosa	Lucifer faxoni	Mysidopsis bigelowi	Neomysis americana	Callinassa spp
04MAR82	9.94 ( 1.46)	0.00 ( . )	0.01 ( 0.01)	0.04 ( 0.03)	0.00 ( . )
22APR82	6.93 ( 1.44)	0.00 ( . )	0.30 ( 0.30)	0.48 ( 0.32)	0.00 ( . )
29APR82	50.91 ( 7.73)	0.00 ( . )	0.00 ( . )	0.04 ( 0.03)	0.00 ( . )
24MAY82	11.58 ( 5.86)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
30MAY82	1.50 ( 1.42)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
08JUN82	0.08 ( 0.07)	0.00 ( . )	0.00 ( . )	0.01 ( 0.01)	0.12 ( 0.11)
21JUN82	0.07 ( 0.07)	0.00 ( . )	0.00 ( . )	0.01 ( 0.01)	0.21 ( 0.10)
12JUL82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.27 ( 0.06)
30JUL82	0.14 ( 0.07)	0.00 ( . )	0.00 ( . )	0.04 ( 0.03)	12.32 ( 5.40)
04AUG82	0.18 ( 0.13)	0.05 ( 0.05)	0.00 ( . )	0.26 ( 0.12)	1.20 ( 0.11)
18AUG82	0.03 ( 0.03)	0.07 ( 0.03)	0.00 ( . )	0.10 ( 0.06)	0.43 ( 0.22)
30AUG82	0.01 ( 0.01)	0.32 ( 0.18)	0.11 ( 0.11)	0.15 ( 0.11)	1.00 ( 0.38)
16SEP82	0.19 ( 0.07)	0.07 ( 0.04)	0.00 ( . )	0.01 ( 0.01)	0.03 ( 0.03)
24SEP82	0.13 ( 0.04)	0.36 ( 0.09)	0.00 ( . )	3.62 ( 2.19)	0.02 ( 0.02)
07OCT82	0.00 ( . )	0.23 ( 0.06)	0.04 ( 0.04)	0.78 ( 0.45)	0.09 ( 0.09)
15OCT82	0.03 ( 0.01)	0.25 ( 0.11)	0.00 ( . )	0.10 ( 0.02)	0.00 ( . )
29OCT82	0.49 ( 0.15)	0.08 ( 0.03)	0.03 ( 0.01)	0.39 ( 0.13)	0.00 ( . )
11NOV82	0.41 ( 0.14)	0.04 ( 0.02)	0.00 ( . )	2.15 ( 1.98)	0.00 ( . )
10DEC82	0.18 ( 0.13)	0.00 ( . )	0.15 ( 0.15)	0.38 ( 0.32)	0.00 ( . )
31JAN83	3.81 ( 0.46)	0.00 ( . )	0.01 ( 0.01)	0.20 ( 0.17)	0.00 ( . )
09FEB83	9.83 ( 0.81)	0.00 ( . )	0.00 ( . )	0.06 ( 0.06)	0.00 ( . )
10MAR83	9.30 ( 1.01)	0.00 ( . )	0.09 ( 0.07)	0.04 ( 0.04)	0.00 ( . )
11APR83	13.27 ( 0.98)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
27APR83	38.05 ( 6.77)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
11MAY83	46.69 ( 18.83)	0.00 ( . )	0.00 ( . )	0.05 ( 0.05)	0.00 ( . )
31MAY83	25.70 ( 7.80)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
24JUN83	0.62 ( 0.07)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
13JUL83	0.62 ( 0.08)	0.00 ( . )	0.00 ( . )	0.02 ( 0.02)	0.31 ( 0.32)
29JUL83	0.28 ( 0.17)	0.00 ( . )	0.00 ( . )	0.03 ( 0.03)	0.19 ( 0.09)
09AUG83	0.02 ( 0.02)	0.08 ( 0.08)	0.00 ( . )	0.09 ( 0.05)	0.70 ( 0.26)
26AUG83	0.00 ( . )	0.03 ( 0.03)	0.00 ( . )	0.42 ( 0.25)	0.00 ( . )
12SEP83	0.00 ( . )	0.38 ( 0.15)	1.44 ( 0.91)	0.03 ( 0.03)	0.12 ( 0.05)
03OCT83	0.00 ( . )	1.14 ( 0.60)	0.00 ( . )	1.71 ( 0.76)	0.00 ( . )
13OCT83	0.09 ( 0.03)	1.21 ( 0.26)	0.00 ( . )	10.91 ( 3.60)	0.00 ( . )
28OCT83	0.39 ( 0.10)	0.14 ( 0.07)	0.00 ( . )	9.78 ( 0.92)	0.00 ( . )
14NOV83	0.24 ( 0.12)	0.00 ( . )	0.00 ( . )	0.08 ( 0.03)	0.00 ( . )
16DEC83	1.15 ( 0.62)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )

Table A3. (Continued)

DATE	SHRIMP					SUMMARY OF TOWS AT STATION 5					MEAN OF 4 353 U OBLIQUE TOWS IN NOS PER METER CUBED (STD ERROR)				
	Crangon Septemspinosa	Lucifer faxoni	Mysidopsis bigelowi	Neomysis americana	Callinassa spp										
04MAR82	0.94 ( 0.18)	0.00 ( . )	0.00 ( . )	0.07 ( 0.02)	0.00 ( . )										
26MAR82	4.84 ( 0.67)	0.00 ( . )	0.00 ( . )	0.07 ( 0.05)	0.00 ( . )										
29APR82	8.61 ( 2.17)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )										
23MAY82	9.12 ( 3.75)	0.00 ( . )	0.00 ( . )	0.23 ( 0.14)	0.00 ( . )										
24MAY82	0.34 ( 0.13)	0.00 ( . )	0.00 ( . )	0.08 ( 0.07)	0.00 ( . )										
11JUN82	0.07 ( 0.04)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )										
22JUN82	0.22 ( 0.22)	0.00 ( . )	0.00 ( . )	0.35 ( 0.11)	0.39 ( 0.39)										
12JUL82	0.49 ( 0.25)	0.00 ( . )	0.00 ( . )	0.52 ( 0.11)	1.49 ( 0.25)										
30JUL82	0.11 ( 0.02)	0.05 ( 0.05)	0.00 ( . )	0.01 ( 0.01)	0.11 ( 0.04)										
06AUG82	0.33 ( 0.22)	0.00 ( . )	0.35 ( 0.27)	27.51 ( 13.40)	0.22 ( 0.11)										
18AUG82	0.09 ( 0.07)	0.05 ( 0.02)	0.02 ( 0.02)	0.51 ( 0.29)	1.73 ( 1.07)										
31AUG82	0.13 ( 0.08)	0.38 ( 0.21)	0.12 ( 0.12)	11.59 ( 7.13)	0.76 ( 0.42)										
17SEP82	0.18 ( 0.11)	0.05 ( 0.02)	0.00 ( . )	12.93 ( 8.46)	0.01 ( 0.01)										
23SEP82	0.00 ( . )	0.02 ( 0.02)	0.00 ( . )	18.57 ( 16.18)	0.00 ( . )										
06OCT82	0.02 ( 0.02)	0.15 ( 0.04)	0.03 ( 0.02)	2.58 ( 1.32)	0.01 ( 0.01)										
14OCT82	0.01 ( 0.01)	0.04 ( 0.02)	0.00 ( . )	0.67 ( 0.36)	0.00 ( . )										
28OCT82	0.03 ( 0.03)	0.02 ( 0.02)	0.00 ( . )	95.05 ( 26.98)	0.00 ( . )										
12NOV82	0.48 ( 0.20)	0.02 ( 0.01)	0.00 ( . )	157.36 ( 66.81)	0.00 ( . )										
09DEC82	0.26 ( 0.09)	0.00 ( . )	0.01 ( 0.01)	0.01 ( 0.01)	0.03 ( 0.03)										
18JAN83	1.53 ( 0.11)	0.00 ( . )	0.00 ( . )	0.09 ( 0.03)	0.00 ( . )										
07FEB83	0.54 ( 0.06)	0.00 ( . )	0.01 ( 0.01)	0.08 ( 0.05)	0.01 ( 0.01)										
10MAR83	4.05 ( 0.75)	0.00 ( . )	0.00 ( . )	0.14 ( 0.10)	0.00 ( . )										
11APR83	5.39 ( 1.22)	0.00 ( . )	0.08 ( 0.08)	7.34 ( 4.06)	0.00 ( . )										
29APR83	1.50 ( 0.17)	0.00 ( . )	0.00 ( . )	0.27 ( 0.10)	0.00 ( . )										
26MAY83	11.53 ( 1.19)	0.00 ( . )	0.00 ( . )	0.44 ( 0.15)	0.30 ( . )										
30MAY83	4.66 ( 2.30)	0.00 ( . )	0.14 ( 0.14)	48.05 ( 47.49)	0.00 ( . )										
21JUN83	1.08 ( 0.49)	0.00 ( . )	0.00 ( . )	47.14 ( 18.40)	0.30 ( . )										
12JUL83	0.25 ( 0.15)	0.00 ( . )	0.00 ( . )	14.75 ( 4.69)	0.44 ( 0.20)										
29JUL83	0.54 ( 0.44)	0.00 ( . )	0.00 ( . )	20.50 ( 14.80)	0.28 ( 0.19)										
12AUG83	0.06 ( 0.06)	0.00 ( . )	0.00 ( . )	428.29 ( 191.03)	1.09 ( 0.88)										
25AUG83	0.00 ( . )	0.02 ( 0.02)	0.00 ( . )	0.26 ( 0.15)	0.07 ( 0.04)										
13SEP83	0.00 ( . )	0.05 ( 0.03)	0.07 ( 0.07)	0.01 ( 0.01)	0.30 ( . )										
26SEP83	0.00 ( . )	0.30 ( 0.11)	0.14 ( 0.11)	1.02 ( 0.13)	0.03 ( 0.03)										
14OCT83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.73 ( 0.41)	0.30 ( . )										
28OCT83	0.00 ( . )	0.02 ( 0.02)	0.00 ( . )	0.97 ( 0.16)	0.30 ( . )										
23NOV83	0.66 ( 0.20)	0.01 ( 0.01)	0.00 ( . )	0.26 ( 0.10)	0.00 ( . )										
16DEC83	1.07 ( 0.84)	0.00 ( . )	0.00 ( . )	2.41 ( 1.11)	0.30 ( . )										

Table A3. (Continued)

DATE	Crangon Septemspinosa	Lucifer faxoni	Mysidopsis bigelawi	Neomysis americana	Callinassa spp	
05MAR82	0.03 ( 0.01)	0.00 ( . )	0.00 ( 0.00)	0.01 ( 0.01)	0.00 ( . )	0.00 ( . )
26MAR82	0.07 ( 0.01)	0.00 ( . )	0.00 ( . )	0.80 ( 0.44)	0.00 ( . )	0.00 ( . )
29APR82	0.40 ( 0.18)	0.00 ( . )	0.00 ( . )	0.01 ( 0.01)	0.00 ( . )	0.00 ( . )
29MAY82	0.00 ( 0.00)	0.00 ( 0.00)	0.00 ( . )	0.09 ( 0.04)	0.00 ( . )	0.00 ( . )
11JUN82	0.53 ( 0.29)	0.00 ( . )	0.00 ( . )	0.02 ( 0.01)	0.00 ( . )	0.00 ( . )
22JUN82	0.06 ( 0.06)	0.00 ( . )	0.00 ( . )	0.02 ( 0.02)	0.26 ( 0.16)	0.26 ( 0.16)
12JUL82	0.09 ( 0.07)	0.00 ( . )	0.00 ( . )	3.30 ( 1.35)	0.90 ( 0.33)	0.90 ( 0.33)
31JUL82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.06 ( 0.04)	0.14 ( 0.06)	0.14 ( 0.06)
06AUG82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.09 ( 0.07)	0.22 ( 0.22)	0.22 ( 0.22)
31AUG82	0.18 ( 0.11)	0.01 ( 0.01)	0.02 ( 0.02)	92.61 ( 52.40)	0.31 ( 0.28)	0.31 ( 0.28)
20SEP82	0.01 ( 0.01)	0.03 ( 0.01)	0.00 ( . )	0.64 ( 0.17)	0.01 ( 0.01)	0.01 ( 0.01)
23SEP82	0.00 ( . )	0.01 ( 0.01)	0.00 ( . )	0.02 ( 0.02)	0.00 ( . )	0.00 ( . )
06OCT82	0.01 ( 0.01)	0.01 ( 0.01)	0.03 ( 0.02)	0.99 ( 0.38)	0.00 ( . )	0.00 ( . )
14OCT82	0.05 ( 0.03)	0.02 ( 0.02)	0.00 ( . )	0.40 ( 0.13)	0.00 ( . )	0.00 ( . )
28OCT82	0.00 ( . )	0.01 ( 0.01)	0.02 ( 0.02)	0.64 ( 0.40)	0.00 ( . )	0.00 ( . )
12NOV82	0.12 ( 0.07)	0.01 ( 0.01)	0.00 ( . )	1.49 ( 0.13)	0.00 ( . )	0.00 ( . )
09DEC82	0.43 ( 0.10)	0.00 ( . )	0.02 ( 0.01)	0.04 ( 0.03)	0.00 ( . )	0.00 ( . )
18JAN83	0.72 ( 0.17)	0.00 ( . )	0.00 ( . )	1.38 ( 1.35)	0.00 ( . )	0.00 ( . )
07FEB83	0.20 ( 0.07)	0.00 ( . )	0.00 ( . )	0.24 ( 0.12)	0.00 ( . )	0.00 ( . )
08MAR83	3.64 ( 1.01)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
06APR83	0.75 ( 0.06)	0.00 ( . )	0.00 ( . )	0.05 ( 0.05)	0.00 ( . )	0.00 ( . )
29APR83	0.66 ( 0.23)	0.00 ( . )	0.00 ( . )	12.68 ( 1.17)	0.00 ( . )	0.00 ( . )
26MAY83	0.40 ( 0.15)	0.00 ( . )	0.00 ( . )	0.56 ( 0.28)	0.00 ( . )	0.00 ( . )
30MAY83	0.08 ( 0.03)	0.00 ( . )	0.00 ( . )	0.75 ( 0.28)	0.00 ( . )	0.00 ( . )
21JUN83	0.02 ( 0.01)	0.00 ( . )	0.00 ( . )	7.78 ( 1.15)	0.01 ( 0.01)	0.01 ( 0.01)
12JUL83	0.06 ( 0.06)	0.00 ( . )	0.00 ( . )	88.40 ( 20.04)	0.58 ( 0.20)	0.58 ( 0.20)
29JUL83	0.09 ( 0.07)	0.00 ( . )	0.00 ( . )	2.04 ( 1.81)	0.07 ( 0.04)	0.07 ( 0.04)
12AUG83	0.00 ( . )	0.00 ( . )	0.05 ( 0.05)	18.26 ( 2.62)	0.25 ( 0.17)	0.25 ( 0.17)
25AUG83	0.30 ( 0.01)	0.00 ( . )	0.00 ( . )	3.42 ( 1.20)	0.01 ( 0.01)	0.01 ( 0.01)
13SEP83	0.00 ( . )	0.02 ( 0.02)	0.00 ( . )	0.12 ( 0.09)	0.00 ( . )	0.00 ( . )
26SEP83	0.00 ( . )	0.03 ( 0.02)	0.06 ( 0.02)	0.23 ( 0.07)	0.00 ( . )	0.00 ( . )
14OCT83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.26 ( 0.06)	0.00 ( . )	0.00 ( . )
26OCT83	0.07 ( 0.03)	0.04 ( 0.02)	0.00 ( . )	0.24 ( 0.08)	0.03 ( 0.02)	0.03 ( 0.02)
23NOV83	0.07 ( 0.01)	0.00 ( . )	0.00 ( . )	0.09 ( 0.02)	0.00 ( . )	0.00 ( . )
16DEC83	0.04 ( 0.04)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )



Table A3. (Continued)

DATE	SHRIMP					SUMMARY OF TOWS AT STATION 7					MEAN OF 4 353 U CBLIQUE TOWS IN NOS PER METER CUBED(STD ERROR)				
	Cranyon Septemspinosa	Lucifer faxoni	Mysidopsis bigelovi	Neomysis americana	Callinassa spp										
05MAR82	0.08 ( 0.02)	0.00 ( . )	0.05 ( 0.03)	1.97 ( 1.15)	0.00 ( . )										
29APR82	0.22 ( 0.09)	0.00 ( . )	0.00 ( . )	0.00 ( 0.00)	0.00 ( . )										
23MAY82	0.30 ( 0.21)	0.00 ( . )	0.00 ( . )	14.79 ( 14.28)	0.00 ( . )										
29MAY82	0.07 ( 0.03)	0.00 ( . )	0.00 ( . )	1.02 ( 0.76)	0.00 ( 0.00)										
15JUN82	0.00 ( . )	0.00 ( . )	0.00 ( . )	4.18 ( 0.28)	0.00 ( . )										
22JUN82	0.01 ( 0.01)	0.00 ( . )	0.00 ( . )	3.30 ( 0.53)	0.00 ( . )										
13JUL82	0.03 ( 0.03)	0.00 ( . )	0.00 ( . )	2.98 ( 2.89)	0.10 ( 0.06)										
31JUL82	0.20 ( 0.09)	0.00 ( . )	0.00 ( . )	0.09 ( 0.04)	0.02 ( 0.01)										
06AUG82	0.02 ( 0.02)	0.00 ( . )	0.00 ( . )	0.38 ( 0.23)	0.00 ( . )										
19AUG82	0.06 ( 0.06)	0.00 ( . )	0.10 ( 0.10)	2.30 ( 1.38)	0.36 ( 0.36)										
31AUG82	0.01 ( 0.01)	0.02 ( 0.02)	0.00 ( . )	0.94 ( 0.49)	0.02 ( 0.02)										
17SEP82	0.00 ( . )	0.08 ( 0.04)	0.00 ( . )	0.11 ( 0.04)	0.00 ( . )										
23SEP82	0.04 ( 0.04)	0.00 ( . )	0.00 ( . )	0.01 ( 0.01)	0.01 ( 0.01)										
06OCT82	0.02 ( 0.02)	0.03 ( 0.01)	0.00 ( . )	0.03 ( 0.03)	0.00 ( . )										
14OCT82	0.01 ( 0.02)	0.01 ( 0.01)	0.00 ( . )	0.11 ( 0.06)	0.00 ( . )										
28OCT82	0.04 ( 0.02)	0.00 ( . )	0.00 ( . )	0.04 ( 0.03)	0.00 ( . )										
12NOV82	0.01 ( 0.01)	0.02 ( 0.02)	0.00 ( . )	0.16 ( 0.14)	0.00 ( . )										
09DEC82	148.74 ( 148.61)	0.00 ( . )	0.00 ( . )	19.88 ( 19.80)	0.00 ( 0.00)										
18JAN83	0.11 ( 0.05)	0.00 ( . )	0.00 ( . )	0.03 ( 0.02)	0.00 ( . )										
07FEB83	0.10 ( 0.04)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )										
08MAR83	0.33 ( 0.19)	0.00 ( . )	0.04 ( 0.03)	1.56 ( 0.85)	0.00 ( . )										
06APR83	0.16 ( 0.11)	0.00 ( . )	0.00 ( . )	8.75 ( 7.19)	0.00 ( . )										
29APR83	0.18 ( 0.03)	0.00 ( . )	0.00 ( . )	8.03 ( 1.49)	0.00 ( . )										
26MAY83	0.12 ( 0.04)	0.00 ( . )	0.00 ( . )	0.96 ( 0.47)	0.00 ( . )										
30MAY83	0.03 ( 0.02)	0.00 ( . )	0.00 ( . )	0.30 ( 0.09)	0.00 ( . )										
21JUN83	0.00 ( . )	0.02 ( 0.02)	0.00 ( . )	33.51 ( 17.36)	0.00 ( . )										
12JUL83	0.22 ( 0.22)	0.00 ( . )	0.71 ( 0.61)	2.13 ( 1.37)	0.00 ( . )										
12AUG83	0.08 ( 0.08)	0.00 ( . )	0.00 ( . )	0.12 ( 0.07)	0.00 ( . )										
25AUG83	0.02 ( 0.02)	0.00 ( . )	0.00 ( . )	0.09 ( 0.09)	0.02 ( 0.02)										
13SEP83	0.29 ( 0.09)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )										
26SEP83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.02 ( 0.02)	0.00 ( . )										
14OCT83	0.03 ( 0.03)	0.07 ( 0.04)	0.03 ( 0.03)	0.00 ( . )	0.00 ( . )										
26OCT83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.23 ( 0.11)	0.00 ( . )										
23NOV83	0.07 ( 0.05)	0.00 ( . )	0.00 ( . )	0.17 ( 0.05)	0.00 ( . )										
16DEC83	0.17 ( 0.01)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )										

Table A3 (Continued)

SHRIMP  
SUMMARY OF TOWS AT STATION 8  
MEAN OF 4 353 U NEUSTON TONS IN NOS PER METER CUBED(STD ERROR)

DATE	Crangon Septemspinosa	Lucifer faxoni	Mysidopsis bigelowi	Neomysis americana	Callinassa spp
17MAR82	0.19 ( 0.07)	0.00 ( . )	0.00 ( . )	1.19 ( 1.08)	0.00 ( . )
30MAR82	0.05 ( 0.02)	0.00 ( . )	0.00 ( 0.00)	0.00 ( . )	0.00 ( . )
22APR82	1.02 ( 0.65)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
19MAY82	14.99 ( 3.85)	0.00 ( . )	0.00 ( . )	0.00 ( 0.00)	0.00 ( . )
30JUN82	0.08 ( 0.06)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( 3.24)
22JUL82	0.00 ( . )	0.00 ( 0.00)	0.00 ( . )	0.00 ( . )	0.01 ( 3.01)
12AUG82	0.01 ( 0.01)	2.04 ( 1.77)	0.00 ( . )	0.01 ( 0.01)	0.06 ( 3.03)
09SEP82	0.00 ( . )	0.04 ( 0.02)	0.00 ( 0.00)	0.04 ( 0.01)	0.11 ( 3.01)
20OCT82	0.01 ( 0.01)	0.00 ( 0.00)	0.00 ( 0.00)	0.03 ( 0.02)	0.00 ( . )
18NOV82	0.09 ( 0.02)	0.00 ( . )	0.00 ( 0.00)	0.09 ( 7.32)	0.00 ( . )
30NOV82	0.03 ( 0.02)	0.00 ( . )	0.48 ( 0.14)	23.09 ( . )	0.00 ( . )
26JAN83	0.34 ( 0.08)	0.00 ( . )	0.00 ( . )	0.00 ( 0.00)	0.00 ( . )
09FEB83	1.87 ( 0.17)	0.00 ( . )	0.00 ( . )	0.01 ( 0.01)	0.00 ( . )
30MAR83	0.23 ( 0.13)	0.00 ( . )	0.00 ( . )	0.00 ( 0.00)	0.00 ( 3.00)
21APR83	0.05 ( 0.04)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
19MAY83	0.97 ( 0.51)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
16JUN83	0.04 ( 0.03)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
08JUL83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( 3.01)
11AUG83	0.00 ( . )	0.06 ( 0.04)	0.00 ( . )	0.00 ( . )	0.00 ( . )
20SEP83	0.00 ( . )	0.53 ( 0.23)	0.01 ( 0.00)	0.02 ( 0.00)	0.00 ( . )
02NOV83	0.01 ( 0.00)	0.00 ( . )	0.02 ( 0.02)	0.01 ( 0.00)	0.00 ( . )
23NOV83	0.04 ( 0.01)	0.00 ( . )	0.01 ( 0.01)	0.01 ( 0.01)	0.00 ( . )
10DEC83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.02 ( 0.01)	0.00 ( . )

Table A3. (Continued)

SHRIMP  
SUMMARY OF TOWS AT STATION 8  
MEAN OF 4 353 U OBLIQUE TOWS IN NOS PER METER CUBED (STD ERROR)

DATE	Crangon Septemspinosa	Lucifer faxoni	Mysidopsis bigelowi	Neomysis americana	Callinassa spp
17MAR82	0.10 ( 0.05)	0.00 ( . )	0.10 ( 0.10)	0.32 ( 0.24)	0.00 ( . )
30MAR82	2.66 ( 0.64)	0.00 ( . )	0.00 ( 0.00)	0.00 ( 0.00)	0.00 ( . )
22APR82	19.95 ( 5.05)	0.00 ( . )	0.00 ( 0.00)	0.04 ( 0.02)	0.00 ( . )
19MAY82	17.20 ( 2.70)	0.00 ( . )	0.00 ( . )	0.29 ( 0.29)	0.20 ( . )
30JUN82	0.24 ( 0.12)	0.00 ( . )	0.01 ( 0.01)	0.00 ( . )	9.88 ( 1.47)
22JUL82	0.04 ( 0.04)	0.01 ( 0.01)	0.00 ( . )	0.10 ( 0.05)	0.15 ( 3.04)
12AUG82	0.01 ( 0.01)	4.11 ( 1.52)	0.00 ( . )	0.59 ( 0.27)	8.82 ( 3.19)
09SEP82	0.00 ( . )	6.08 ( 2.46)	0.13 ( 0.09)	24.59 ( 6.96)	14.61 ( 7.16)
20OCT82	0.21 ( 0.16)	0.02 ( 0.02)	0.33 ( 0.16)	0.00 ( . )	0.04 ( 0.01)
18NOV82	0.11 ( 0.08)	0.00 ( . )	0.00 ( . )	0.08 ( 0.05)	0.00 ( . )
30NOV82	0.09 ( 0.05)	0.00 ( . )	0.75 ( 0.37)	16.02 ( 1.71)	0.00 ( . )
26JAN83	6.94 ( 0.33)	0.00 ( . )	0.85 ( 0.14)	0.08 ( 0.05)	0.00 ( . )
09FEB83	2.85 ( 0.35)	0.00 ( . )	0.24 ( 0.11)	0.20 ( 0.11)	0.01 ( 3.01)
30MAR83	0.66 ( 0.55)	0.00 ( . )	0.00 ( . )	0.02 ( 0.02)	0.05 ( 3.05)
21APR83	6.00 ( 0.76)	0.03 ( 0.03)	0.00 ( . )	0.00 ( . )	0.20 ( . )
19MAY83	6.50 ( 0.84)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.20 ( . )
16JUN83	7.91 ( 4.75)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
08JUL83	0.12 ( 0.12)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.21 ( 3.05)
11AUG83	0.03 ( 0.02)	0.12 ( 0.04)	0.00 ( . )	0.08 ( 0.05)	0.57 ( 3.18)
20SEP83	0.04 ( 0.03)	4.47 ( 0.30)	1.62 ( 0.94)	0.96 ( 0.18)	0.13 ( 3.06)
02NOV83	0.35 ( 0.13)	0.05 ( 0.05)	0.00 ( . )	0.71 ( 0.19)	0.03 ( 0.03)
23NOV83	0.39 ( 0.13)	0.21 ( 0.12)	0.00 ( . )	11.42 ( 6.62)	0.20 ( . )
10DEC83	0.09 ( 0.03)	0.00 ( . )	0.02 ( 0.02)	0.03 ( 0.03)	0.20 ( . )

Table A3. (Continued)

SHRIMP  
SUMMARY OF TOWS AT STATION 9  
MEAN OF 4 353 U OBLIQUE TOWS IN NOS PER METER CUBED (STD ERROR)

DATE	Crangon Septemspinosa	Lucifer faxoni	Mysidopsis bigelowi	Neomysis americana	Callinassa spp
17MAR82	10.49 ( 0.79)	0.00 ( . )	5.37 ( 0.45)	16.82 ( 1.83)	0.00 ( . )
30MAR82	42.16 ( 2.18)	0.00 ( . )	0.06 ( 0.03)	1.29 ( 0.10)	0.00 ( . )
19MAY82	14.90 ( 3.19)	0.00 ( . )	0.33 ( 0.17)	0.00 ( . )	0.00 ( . )
30JUN82	4.30 ( 0.50)	0.00 ( . )	0.00 ( . )	0.00 ( . )	7.42 ( 2.83)
22JUL82	0.21 ( 0.15)	0.02 ( 0.02)	0.00 ( . )	0.00 ( . )	7.58 ( 2.39)
12AUG82	0.05 ( 0.05)	1.83 ( 0.24)	0.48 ( 0.20)	0.63 ( 0.15)	7.14 ( 3.56)
09SEP82	0.01 ( 0.01)	0.51 ( 0.23)	0.00 ( . )	24.86 ( 2.20)	0.54 ( 3.26)
20OCT82	0.01 ( 0.01)	0.15 ( 0.05)	0.01 ( 0.01)	1.40 ( 0.19)	0.01 ( 3.01)
18NOV82	0.14 ( 0.02)	0.00 ( . )	0.02 ( 0.01)	0.12 ( 0.04)	0.00 ( . )
24NOV82	0.41 ( 0.11)	0.00 ( . )	0.00 ( . )	0.03 ( 0.02)	0.00 ( . )
30NOV82	0.07 ( 0.03)	0.00 ( . )	0.02 ( 0.02)	2.01 ( 1.13)	0.00 ( . )
22DEC82	5.44 ( 0.92)	0.00 ( . )	0.33 ( 0.08)	2.64 ( 0.64)	0.00 ( . )
26JAN83	2.09 ( 0.90)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
09FEB83	8.87 ( 4.11)	0.00 ( . )	0.87 ( 0.51)	1.83 ( 1.04)	0.00 ( . )
21FEB83	3.43 ( 0.72)	0.00 ( . )	0.15 ( 0.08)	0.97 ( 0.31)	0.00 ( . )
30MAR83	14.68 ( 3.02)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
21APR83	17.26 ( 3.97)	0.00 ( . )	0.00 ( . )	0.12 ( 0.05)	0.00 ( . )
27APR83	56.63 ( 5.83)	0.00 ( . )	0.00 ( . )	0.06 ( 0.07)	0.00 ( . )
19MAY83	11.51 ( 2.11)	0.00 ( . )	0.00 ( . )	0.11 ( 0.07)	0.00 ( . )
16JUN83	0.03 ( 0.03)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
08JUL83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.02 ( 0.01)	0.00 ( . )
28JUL83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.07 ( 0.07)	0.31 ( 3.28)
11AUG83	0.02 ( 0.01)	0.10 ( 0.03)	0.00 ( . )	0.21 ( 0.08)	7.56 ( 1.60)
26AUG83	0.09 ( 0.06)	1.53 ( 0.14)	142.66 ( 27.81)	30.67 ( 17.67)	0.07 ( 3.03)
20SEP83	0.00 ( . )	0.10 ( 0.04)	0.26 ( 0.26)	2.02 ( 1.25)	0.00 ( . )
03OCT83	0.70 ( 0.09)	0.95 ( 0.18)	3.03 ( 0.35)	12.60 ( 1.46)	0.23 ( 3.06)
02NOV83	0.28 ( 0.12)	0.00 ( . )	0.03 ( 0.03)	0.12 ( 0.07)	0.00 ( . )
18NOV83	0.24 ( 0.07)	0.09 ( 0.05)	0.12 ( 0.06)	1.14 ( 0.25)	0.00 ( . )
23NOV83	0.61 ( 0.13)	0.02 ( 0.02)	0.00 ( . )	0.51 ( 0.22)	0.00 ( . )
10DEC83	0.70 ( 0.04)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )

Table A3. (Continued)

SHRIMP  
SUMMARY OF TOWS AT STATION 9  
MEAN OF 4 353 U NEUSTON TOWS IN NOS PER METER CUBED(STD ERROR)

DATE	Crangon Septemspinosa	Lucifer faxoni	Mysidopsis bigelowi	Neomysis americana	Callinassa spp
17MAR82	19.13 ( 3.22)	0.00 ( . )	6.68 ( 1.91)	21.73 ( 5.22)	0.04 ( 0.04)
30MAR82	89.13 ( 15.35)	0.00 ( . )	0.26 ( 0.07)	2.36 ( 0.45)	0.00 ( . )
19MAY82	0.52 ( 0.17)	0.00 ( . )	0.00 ( 0.00)	0.00 ( . )	0.30 ( . )
30JUN82	0.43 ( 0.15)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.11 ( 0.08)
22JUL82	0.08 ( 0.08)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.09 ( 0.05)
12AUG82	0.00 ( . )	0.88 ( 0.26)	0.00 ( . )	0.03 ( 0.02)	0.29 ( 0.17)
09SEP82	0.00 ( 0.00)	0.00 ( 0.00)	0.00 ( . )	0.11 ( 0.02)	0.20 ( 0.08)
20OCT82	0.00 ( . )	0.03 ( 0.01)	0.00 ( . )	0.07 ( 0.03)	0.30 ( . )
18NOV82	0.03 ( 0.01)	0.00 ( . )	0.00 ( . )	0.01 ( 0.00)	0.00 ( . )
30NOV82	0.01 ( 0.01)	0.00 ( . )	0.00 ( . )	0.00 ( 0.00)	0.00 ( . )
26JAN83	0.00 ( 0.00)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
09FEB83	0.40 ( 0.20)	0.00 ( . )	0.00 ( . )	0.00 ( 0.00)	0.30 ( . )
30MAR83	0.15 ( 0.09)	0.00 ( . )	0.01 ( 0.01)	0.00 ( . )	0.00 ( . )
21APR83	0.60 ( 0.16)	0.00 ( . )	0.00 ( . )	0.00 ( 0.00)	0.00 ( 0.00)
19MAY83	2.06 ( 0.85)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
16JUN83	0.09 ( 0.04)	0.00 ( . )	0.00 ( . )	0.00 ( 0.00)	0.00 ( . )
08JUL83	0.03 ( 0.02)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.15 ( 0.08)
11AUG83	0.00 ( . )	0.13 ( 0.03)	0.00 ( . )	0.00 ( . )	0.30 ( . )
20SEP83	0.00 ( . )	0.04 ( 0.01)	0.00 ( . )	0.03 ( 0.01)	0.00 ( 0.00)
02NOV83	0.00 ( 0.00)	0.00 ( . )	0.00 ( . )	0.02 ( 0.00)	0.30 ( . )
23NOV83	0.03 ( 0.02)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
10DEC83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( 0.00)

Table A3. (Continued)

SHRIMP  
SUMMARY OF TOWS AT STATION 10  
MEAN OF 4 353 U NEUSTON TOWS IN NOS PER METER CUBED(STD ERROR)

DATE	Crangon Septemspinosa	Lucifer faxoni	Mysidopsis bigelowi	Neomysis americana	Callinassa spp
17MAR82	0.82 ( 0.50)	0.00 ( . )	0.00 ( . )	0.00 ( 0.00)	0.00 ( . )
3CMAR82	0.10 ( 0.05)	0.00 ( . )	0.00 ( . )	0.00 ( 0.00)	0.00 ( . )
22APR82	12.04 ( 5.57)	0.00 ( . )	0.00 ( 0.00)	0.02 ( 0.02)	0.00 ( . )
19MAY82	24.22 ( 2.56)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
30JUN82	0.59 ( 0.25)	0.05 ( 0.05)	0.00 ( . )	0.00 ( . )	0.28 ( 3.12)
22JUL82	0.13 ( 0.10)	0.01 ( 0.01)	0.00 ( . )	0.01 ( 0.01)	3.92 ( 3.25)
12AUG82	0.03 ( 0.03)	0.14 ( 0.07)	0.00 ( . )	0.03 ( 0.02)	0.22 ( 3.15)
09SEP82	0.14 ( 0.06)	0.56 ( 0.06)	0.06 ( 0.06)	0.15 ( 0.05)	0.10 ( 0.03)
20OCT82	0.07 ( 0.03)	0.00 ( . )	0.03 ( 0.01)	0.06 ( 0.02)	0.00 ( . )
18NOV82	0.02 ( 0.01)	0.00 ( . )	0.00 ( . )	0.01 ( 0.00)	0.00 ( . )
30NOV82	0.47 ( 0.08)	0.00 ( . )	36.19 ( 11.84)	42.09 ( 7.67)	0.00 ( . )
26JAN83	0.04 ( 0.01)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
3CMAR83	13.67 ( 6.49)	0.00 ( . )	0.00 ( . )	0.01 ( 0.01)	0.00 ( . )
21APR83	0.44 ( 0.16)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
19MAY83	3.26 ( 1.32)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
16JUN83	0.61 ( 0.28)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
08JUL83	0.30 ( 0.09)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( 3.00)
11AUG83	0.00 ( . )	0.04 ( 0.03)	0.00 ( 0.00)	0.00 ( 0.00)	0.02 ( 3.02)
20SEP83	0.01 ( 0.01)	0.62 ( 0.11)	0.01 ( 0.01)	0.01 ( 0.01)	0.00 ( . )
02NOV83	0.02 ( 0.00)	0.00 ( . )	0.01 ( 0.00)	0.00 ( . )	0.00 ( . )
19NOV83	0.01 ( 0.01)	0.00 ( . )	0.00 ( 0.00)	0.01 ( 0.01)	0.00 ( . )
11DEC83	0.04 ( 0.01)	0.04 ( 0.02)	0.00 ( . )	0.00 ( . )	0.00 ( . )

Table A3. (Continued)

SHRIMP  
SUMMARY OF TOWS AT STATION 10  
MEAN OF 4 353 U OBlique TOWS IN NOS PER METER CUBED(STD ERROR)

DATE	Crangon Septemspinosa	Lucifer faxoni	Mysidopsis bigelowi	Neomysis americana	Callinassa spp
17MAR82	10.90 ( 1.16)	0.00 ( . )	0.02 ( 0.01)	0.01 ( 0.01)	0.00 ( . )
30MAR82	19.79 ( 0.90)	0.00 ( . )	0.00 ( . )	0.01 ( 0.01)	0.00 ( . )
22APR82	120.13 ( 4.25)	0.00 ( . )	0.10 ( 0.06)	0.01 ( 0.01)	0.00 ( . )
19MAY82	398.85 ( 33.23)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
30JUN82	15.91 ( 5.76)	0.00 ( . )	0.00 ( . )	0.06 ( 0.06)	11.62 ( 2.95)
12AUG82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.48 ( 0.48)	0.00 ( . )
26JAN83	2.85 ( 0.90)	0.00 ( . )	0.03 ( 0.02)	0.14 ( 0.11)	0.00 ( . )
09FEB83	1.61 ( 0.27)	0.00 ( . )	0.02 ( 0.01)	0.00 ( . )	0.00 ( . )
30MAR83	2.35 ( 0.32)	0.00 ( . )	0.00 ( . )	0.04 ( 0.03)	0.00 ( . )
21APR83	49.55 ( 18.96)	0.00 ( . )	0.09 ( 0.07)	0.91 ( 0.71)	1.26 ( 1.26)
19MAY83	114.30 ( 45.05)	0.00 ( . )	0.22 ( 0.19)	1.05 ( 0.61)	0.00 ( . )
16JUN83	79.78 ( 54.86)	0.00 ( . )	2.86 ( 2.67)	54.86 ( 50.82)	0.01 ( 3.01)
08JUL83	10.72 ( 3.94)	0.00 ( . )	0.02 ( 0.02)	0.00 ( . )	0.96 ( 3.21)
11AUG83	0.15 ( 0.12)	0.18 ( 0.01)	0.00 ( . )	2.07 ( 1.14)	1.37 ( 3.47)
20SEP83	0.29 ( 0.16)	2.94 ( 0.74)	1.81 ( 0.50)	0.51 ( 0.51)	0.13 ( 0.04)
02NOV83	3.09 ( 2.46)	0.03 ( 0.00)	0.00 ( . )	0.00 ( . )	0.00 ( . )
19NOV83	0.33 ( 0.23)	0.08 ( 0.03)	18.79 ( 1.85)	0.39 ( 0.26)	0.00 ( . )
11DEC83	0.86 ( 0.09)	0.28 ( 0.15)	0.00 ( . )	0.06 ( 0.05)	0.00 ( . )

Table A3. (Continued)

SHRIMP						
SUMMARY OF TOWS AT STATION DS						
MEAN OF 4 353 U NEUSTON TOWS IN NOS PER METER CUBED (STD ERROR)						
DATE	Crangon Septemspinosa	Lucifer faxoni	Mysidopsis bigelowi	Neomysis americana	Callinassa spp	
17MAR82	0.01 ( 0.00)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	
30MAR82	-0.01 ( 0.02)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	
21APR82	0.08 ( 0.06)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	
18MAY82	0.03 ( 0.02)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	
29JUN82	0.09 ( 0.04)	0.00 ( 0.00)	0.00 ( . )	0.00 ( . )	0.00 ( . )	
21JUL82	0.00 ( . )	1.16 ( 0.36)	0.00 ( . )	0.04 ( 0.04)	0.00 ( 0.00)	
11AUG82	0.00 ( . )	46.22 (18.54)	0.00 ( . )	0.00 ( . )	0.01 ( 0.01)	
08SEP82	0.00 ( . )	0.48 ( 0.31)	0.00 ( . )	0.00 ( . )	0.00 ( . )	
19OCT82	0.00 ( . )	0.20 ( 0.11)	0.00 ( . )	0.08 ( 0.07)	0.00 ( . )	
17NOV82	0.00 ( . )	0.00 ( . )	0.00 ( 0.00)	0.00 ( . )	0.00 ( . )	
30NOV82	0.04 ( 0.03)	0.00 ( . )	947.12 (138.09)	0.04 ( 0.04)	0.00 ( . )	
08FEB83	0.43 ( 0.04)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	
29MAR83	0.01 ( 0.01)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	
23APR83	0.01 ( 0.01)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	
18MAY83	0.01 ( 0.01)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	
14JUN83	0.15 ( 0.07)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	
10AUG83	0.00 ( . )	8.17 ( 1.57)	0.00 ( . )	0.00 ( . )	0.00 ( . )	
19SEP83	0.00 ( . )	7.04 ( 0.90)	0.00 ( . )	0.01 ( 0.01)	0.00 ( . )	
10DEC83	0.00 ( . )	0.01 ( 0.00)	0.00 ( 0.00)	0.00 ( . )	0.00 ( . )	



Table A3. (Continued)

SHRIMP  
SUMMARY OF TOWS AT STATION DS  
MEAN OF 4 353 U OBLIQUE TOWS IN NOS PER METER CUBED (STD ERROR)

DATE	Crangon Septemspinosa	Lucifer faxoni	Mysidopsis bigelowi	Neomysis americana	Callinassa spp
19JAN82	3.30 ( 0.43)	0.00 ( . )	0.00 ( . )	5.92 ( 2.17)	0.30 ( . )
17MAR82	0.02 ( 0.01)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
30MAR82	0.06 ( 0.04)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
21APR82	5.07 ( 3.25)	0.00 ( . )	0.02 ( 0.01)	0.00 ( . )	0.30 ( . )
18MAY82	2.78 ( 0.26)	0.00 ( . )	0.00 ( . )	0.01 ( 0.01)	0.00 ( . )
29JUN82	3.76 ( 0.53)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
21JUL82	1.55 ( 0.43)	0.19 ( 0.09)	0.00 ( . )	0.00 ( . )	0.10 ( 3.08)
11AUG82	1.66 ( 0.37)	25.58 ( 4.00)	0.00 ( . )	0.01 ( 0.01)	0.01 ( 3.01)
08SEP82	0.00 ( . )	0.96 ( 0.30)	0.00 ( . )	0.05 ( . )	0.00 ( . )
19OCT82	0.00 ( . )	0.31 ( 0.12)	0.02 ( 0.01)	0.00 ( . )	0.01 ( 3.01)
17NOV82	1.07 ( 0.54)	0.00 ( . )	0.00 ( . )	2.16 ( 0.84)	0.30 ( . )
30NOV82	0.71 ( 0.21)	0.00 ( . )	125.14 ( 38.55)	16.25 ( 5.53)	0.00 ( . )
08FEB83	2.17 ( 0.13)	0.00 ( . )	6.88 ( 0.78)	10.04 ( 3.03)	0.00 ( . )
29MAR83	0.48 ( 0.11)	0.00 ( . )	0.01 ( 0.01)	0.00 ( . )	0.30 ( . )
23APR83	19.02 ( 2.89)	0.00 ( . )	0.00 ( . )	0.83 ( 0.39)	0.01 ( 3.01)
18MAY83	1.63 ( 0.45)	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.30 ( . )
14JUN83	6.45 ( 0.51)	0.01 ( 0.01)	0.00 ( . )	0.01 ( 0.01)	0.30 ( . )
07JUL83	0.02 ( 0.01)	0.00 ( . )	0.00 ( . )	0.10 ( 0.10)	0.00 ( 3.00)
10AUG83	0.18 ( 0.06)	0.53 ( 0.25)	0.00 ( . )	0.02 ( 0.02)	0.00 ( . )
19SEP83	0.16 ( 0.16)	48.43 ( 4.76)	1.06 ( 0.15)	0.00 ( . )	0.07 ( 3.06)
10DEC83	3.17 ( 0.41)	0.25 ( 0.07)	0.28 ( 0.03)	0.00 ( . )	0.00 ( . )

Table A3. (Continued)

FISH EGGS				
SUMMARY OF TONS AT STATION 1				
PLAN OF 4 353 U OBLIQUE TONS IN NOS PER METER CUBED (STD ERROR)				
DATE	Engraulidae Eggs	Bothidae Eggs	Scleroptera Eggs	Other Fish Eggs
03APR82	0.00 ( . )	0.12 (0.05)	0.00 ( . )	0.02 ( 0.02)
03APR82	0.05 ( 0.05)	0.47 (0.03)	0.00 ( . )	0.20 ( 0.07)
30MAY82	0.00 ( . )	0.00 ( . )	0.05 ( 0.05)	0.03 ( 0.02)
06JUL82	3.18 ( 1.36)	0.00 ( . )	0.54 ( 0.27)	0.18 ( 0.18)
21JUN82	7.38 ( 1.99)	0.00 (0.00)	0.88 ( 0.40)	0.32 ( 0.08)
12JUL82	2.32 ( 0.77)	0.00 ( . )	2.81 ( 0.64)	0.00 ( . )
30JUL82	3.48 ( 0.46)	0.00 ( . )	2.56 ( 0.36)	0.07 ( 0.07)
04AUG82	1.45 ( 0.74)	0.00 ( . )	0.96 ( 0.52)	0.00 ( . )
18AUG82	0.14 ( 0.11)	0.00 ( . )	2.80 ( 1.14)	2.34 ( 1.93)
30AUG82	0.02 ( 0.02)	0.01 (0.01)	2.32 ( 0.85)	0.00 ( . )
10SEP82	0.04 ( 0.04)	0.00 ( . )	0.54 ( 0.50)	2.71 ( 2.71)
24SEP82	0.00 ( 0.00)	0.00 ( . )	0.27 ( 0.12)	0.00 ( . )
07OCT82	0.00 ( . )	0.00 ( . )	0.49 ( 0.18)	0.05 ( 0.05)
17OCT82	0.00 ( . )	0.00 ( . )	0.39 ( 0.13)	0.00 ( . )
29OCT82	0.00 ( . )	0.00 ( . )	0.03 ( 0.02)	0.01 ( 0.01)
11NOV82	0.25 ( 0.25)	0.02 (0.02)	0.07 ( 0.06)	0.02 ( 0.02)
24NOV82	0.00 ( . )	0.00 ( . )	0.02 ( 0.02)	0.00 ( . )
10DEC82	0.00 ( . )	0.00 ( . )	0.07 ( 0.01)	0.00 ( . )
24JAN83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.01 ( 0.01)
10MAR83	0.00 ( . )	0.05 (0.01)	0.00 ( . )	0.00 ( . )
20MAR83	0.00 ( . )	0.00 ( . )	0.06 ( 0.06)	0.00 ( . )
11APR83	0.00 ( . )	0.28 (0.11)	0.00 ( . )	0.00 ( . )
27APR83	0.00 ( . )	0.33 (0.10)	0.00 ( . )	0.00 ( . )
11MAY83	0.06 ( 0.06)	0.00 ( . )	0.82 ( 0.14)	0.00 ( . )
31MAY83	08.02 ( 8.95)	0.00 ( . )	0.30 ( 0.15)	0.15 ( 0.15)
24JUN83	28.62 ( 8.63)	0.00 ( . )	6.05 ( 2.65)	0.00 ( . )
13JUL83	443.31 (165.58)	0.00 ( . )	118.70 ( 51.03)	0.00 ( . )
28JUL83	1.29 ( 0.31)	0.00 ( . )	179.71 ( 33.19)	0.00 ( . )
07AUG83	9.67 ( 3.63)	0.00 ( . )	1.91 ( 0.32)	8.22 ( 3.34)
22AUG83	0.00 ( . )	0.00 ( . )	5.97 ( 0.75)	0.00 ( . )
12SEP83	0.00 ( . )	0.00 ( . )	0.39 ( 0.13)	0.00 ( . )
03OCT83	0.00 ( . )	0.00 ( . )	0.02 ( 0.02)	0.00 ( . )
23OCT83	0.00 ( . )	0.29 (0.10)	0.00 ( . )	0.00 ( . )
01NOV83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
17NOV83	0.00 ( . )	0.00 ( . )	0.03 ( 0.03)	0.01 ( 0.01)

Table A3. (Continued)

FISH EGGS				
SUMMARY OF TONS AT STATION 2				
MEAN OF 4 353 U OBLIQUE TONS IN NOS PER METER CUBED (STD ERROR)				
DATE	Engraulidae Eggs	Bothidae Eggs	Sciaenidae Eggs	Other Fish Eggs
09MAR82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( 0.00)
22APR82	0.00 ( . )	0.60 (0.12)	0.00 ( . )	0.01 ( 0.01)
24APR82	0.03 ( 0.03)	0.23 (0.23)	0.23 ( 0.23)	0.17 ( 0.15)
24APR82	56.61 ( 6.48)	0.00 ( . )	3.95 ( 2.63)	0.02 ( 0.02)
30APR82	7.97 ( 4.49)	0.00 ( . )	2.02 ( 1.51)	1.50 ( 0.99)
08JUN82	0.17 ( 0.07)	0.07 (0.04)	1.00 ( 0.92)	0.17 ( 0.17)
21JUN82	4.54 ( 1.55)	0.00 ( . )	1.47 ( 0.83)	0.26 ( 0.26)
12JUL82	33.37 ( 15.22)	0.03 (0.02)	15.90 ( 5.53)	2.72 ( 2.72)
30JUL82	39.98 ( 8.98)	0.00 ( . )	90.25 ( 28.23)	0.00 ( . )
04AUG82	49.82 ( 27.79)	7.60 (7.60)	97.07 ( 52.82)	0.00 ( . )
18AUG82	3.46 ( 2.65)	0.00 ( . )	2.16 ( 1.51)	0.61 ( 0.61)
30AUG82	0.07 ( 0.05)	0.00 ( . )	0.50 ( 0.15)	0.09 ( 0.08)
16SEP82	0.00 ( . )	0.00 ( . )	0.02 ( 0.02)	0.00 ( . )
24SEP82	0.00 ( . )	0.00 ( . )	0.10 ( 0.05)	0.00 ( 0.00)
07OCT82	0.00 ( . )	0.00 ( . )	0.24 ( 0.11)	0.00 ( . )
15OCT82	0.00 ( . )	0.00 ( . )	0.09 ( 0.04)	0.00 ( . )
11NOV82	0.00 ( . )	0.00 ( . )	0.07 ( 0.03)	0.00 ( . )
10DEC82	0.01 ( 0.01)	0.00 ( . )	0.03 ( 0.02)	0.00 ( . )
10FEB83	0.00 ( . )	0.05 (0.02)	0.00 ( . )	0.00 ( . )
28MAR83	0.00 ( . )	0.07 (0.03)	0.00 ( . )	0.00 ( . )
11APR83	0.00 ( . )	0.24 (0.01)	0.00 ( . )	0.00 ( . )
27APR83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )
11MAY83	0.00 ( . )	0.00 ( . )	0.09 ( 0.06)	0.07 ( 0.06)
31MAY83	30.25 ( 1.96)	0.00 ( . )	0.88 ( 0.25)	0.00 ( . )
24JUN83	1.34 ( 0.38)	0.00 ( . )	0.43 ( 0.13)	0.00 ( . )
13JUL83	0.00 ( . )	0.00 ( . )	2.72 ( 0.84)	0.40 ( 0.11)
28JUL83	174.40 ( 35.37)	0.00 ( . )	80.97 ( 10.07)	0.00 ( . )
05AUG83	53.27 ( 10.78)	0.00 ( . )	1.72 ( 0.62)	0.00 ( . )
26AUG83	4.77 ( 1.45)	0.00 ( . )	2.67 ( 0.75)	0.00 ( . )
12SEP83	0.00 ( . )	0.02 (0.02)	6.07 ( 1.34)	1.02 ( 0.36)
03OCT83	0.00 ( . )	0.03 (0.03)	1.16 ( 0.25)	0.00 ( . )
13OCT83	0.00 ( . )	0.00 ( . )	0.01 ( 0.01)	0.00 ( . )
28OCT83	0.00 ( . )	0.00 ( . )	0.01 ( 0.01)	0.00 ( . )
18NOV83	0.00 ( . )	0.20 (0.16)	0.03 ( 0.03)	0.00 ( . )
			0.00 ( . )	0.00 ( . )

Table A3. (Continued)

FISH EGGS  
SUMMARY OF TONS AT STATION 3  
MEAN OF 4 353 U OBLIQUE TONS IN NOS PER METER CUBED (STD ERROR)

DATE	Engraulidae Eggs	Bothidae Eggs	Scleroptera Eggs	Other Fish Eggs
22APR82	0.04 ( 0.04)	0.01 (0.01)	0.00 ( 0.00)	0.00 ( . )
22APR82	0.00 ( . )	1.07 (0.41)	0.00 ( . )	0.06 ( 0.05)
29APR82	0.00 ( . )	2.07 (0.45)	0.00 ( . )	0.02 ( 0.02)
4MAY82	101.42 ( 13.94)	0.00 ( . )	6.59 ( 2.76)	0.00 ( . )
5MAY82	6.00 ( 2.10)	0.01 (0.01)	0.33 ( 0.07)	0.28 ( 0.06)
6JUN82	1.99 ( 0.49)	0.01 (0.01)	1.68 ( 0.25)	2.30 ( 1.07)
11JUN82	3.40 ( 2.69)	0.00 ( . )	1.33 ( 0.77)	0.57 ( 0.34)
12JUL82	38.65 ( 16.07)	0.00 ( . )	12.17 ( 12.16)	5.18 ( 2.83)
10JUL82	38.60 ( 11.38)	0.00 ( . )	47.26 ( 13.07)	0.00 ( . )
18AUG82	0.00 ( . )	0.00 ( . )	0.77 ( 0.46)	0.23 ( 0.23)
30AUG82	0.00 ( . )	0.00 ( . )	0.86 ( 0.13)	0.00 ( . )
16SEP82	0.00 ( . )	0.00 ( . )	0.16 ( 0.10)	0.00 ( . )
24SEP82	0.00 ( . )	0.00 ( . )	0.11 ( 0.11)	0.00 ( . )
07OCT82	0.00 ( . )	0.00 ( . )	0.44 ( 0.07)	0.00 ( . )
15OCT82	0.00 ( . )	0.00 ( . )	0.19 ( 0.03)	0.00 ( . )
11NOV82	0.01 ( 0.01)	0.00 ( . )	0.34 ( 0.23)	0.00 ( . )
10DEC82	0.02 ( 0.02)	0.00 ( . )	0.01 ( 0.01)	0.00 ( . )
09FEB83	0.00 ( . )	0.00 ( . )	0.02 ( 0.01)	0.00 ( . )
21FEB83	0.00 ( . )	0.00 ( . )	0.03 ( 0.02)	0.00 ( . )
10MAR83	0.00 ( . )	0.00 ( . )	0.49 ( 0.08)	0.00 ( . )
28MAR83	0.00 ( . )	0.00 ( . )	0.38 ( 0.06)	0.01 ( 0.01)
11APR83	0.00 ( . )	0.00 ( . )	0.52 ( 0.06)	0.00 ( . )
27APR83	0.00 ( . )	0.05 (0.05)	0.23 ( 0.13)	0.12 ( 0.08)
11MAY83	0.44 ( 0.23)	0.00 ( . )	0.23 ( 0.15)	0.89 ( 0.36)
31MAY83	11.88 ( 0.67)	0.00 ( . )	0.01 ( 0.01)	0.00 ( . )
24JUN83	4.58 ( 0.47)	0.00 ( . )	1.29 ( 0.24)	0.00 ( . )
13JUL83	122.83 ( 26.29)	0.00 ( . )	3.14 ( 1.24)	0.00 ( . )
20JUL83	25.59 ( 5.60)	0.00 ( . )	1.38 ( 0.12)	39.86 ( 6.95)
05AUG83	1.42 ( 0.37)	0.00 ( . )	61.97 ( 33.36)	0.00 ( . )
26AUG83	0.26 ( 0.10)	0.00 ( . )	8.00 ( 0.84)	0.00 ( . )
12SEP83	0.00 ( . )	0.15 (0.10)	40.72 ( 35.50)	0.00 ( . )
13OCT83	0.00 ( . )	0.00 ( . )	0.21 ( 0.12)	0.00 ( . )
28OCT83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.03 ( 0.02)
29OCT83	0.00 ( . )	0.04 (0.03)	0.09 ( 0.04)	0.00 ( . )

Table A3. (Continued)

DATE	FISH EGGS			
	Engraulidae Eggs	Bothidae Eggs	Scleridae Eggs	Other Fish Eggs
22APR82	0.00 ( . )	0.21 (0.03)	0.00 ( . )	0.01 ( 0.01)
29APR82	0.00 ( . )	0.13 (0.05)	0.00 ( . )	0.20 ( 0.10)
4MAY82	9.29 ( 5.39)	0.00 ( . )	0.21 ( 0.21)	3.40 ( 3.40)
30MAY82	0.67 ( 0.34)	0.00 ( . )	4.80 ( 1.73)	0.22 ( 0.16)
08JUN82	0.00 ( . )	0.00 ( . )	0.01 ( 0.01)	0.04 ( 0.03)
21JUN82	5.17 ( 0.62)	0.00 ( . )	0.38 ( 0.09)	0.34 ( 0.33)
12JUL82	32.34 ( 6.99)	0.01 (0.01)	4.81 ( 3.38)	12.20 (12.20)
30JUL82	40.46 ( 38.32)	0.04 (0.04)	0.88 ( 0.65)	0.00 ( . )
04AUG82	19.25 ( 8.83)	0.05 (0.05)	8.94 ( 5.50)	0.00 ( . )
18AUG82	0.06 ( 0.06)	0.00 ( . )	3.89 ( 1.49)	0.00 ( . )
30AUG82	0.09 ( 0.06)	0.00 ( . )	0.40 ( 0.20)	0.00 ( . )
16SEP82	0.02 ( 0.02)	0.00 ( . )	0.04 ( 0.02)	0.00 ( . )
07OCT82	0.00 ( . )	0.00 ( . )	0.01 ( 0.01)	0.00 ( . )
11NOV82	0.00 ( . )	0.00 ( . )	0.04 ( 0.04)	0.00 ( . )
11APR83	0.01 ( 0.01)	0.00 ( . )	0.00 ( . )	0.00 ( . )
27APR83	0.00 ( . )	0.00 ( . )	0.01 ( 0.01)	0.00 ( . )
11MAY83	0.03 ( 0.02)	0.00 ( . )	0.00 ( . )	0.59 ( 0.59)
31MAY83	28.07 ( 8.14)	0.00 ( . )	0.01 ( 0.01)	0.02 ( 0.02)
24JUN83	0.91 ( 0.09)	0.00 ( . )	1.93 ( 0.26)	0.15 ( 0.06)
13JUL83	0.88 ( 0.64)	0.00 ( . )	0.69 ( 0.26)	93.45 ( 7.80)
29JUL83	88.63 ( 11.01)	0.00 ( . )	1.68 ( 0.37)	33.57 (21.82)
09AUG83	159.15 ( 14.12)	0.00 ( . )	2.39 ( 0.58)	0.00 ( . )
26AUG83	11.65 ( 8.41)	0.00 ( . )	0.97 ( 0.45)	0.00 ( . )
12SEP83	0.00 ( . )	0.00 ( . )	0.10 ( 0.06)	0.04 ( 0.04)
28OCT83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.02 ( 0.02)

Table A3. (Continued)

FISH EGGS  
SUMMARY OF TOWS AT STATION 5  
MEAN OF 4 353 U OBLIQUE TOWS IN MDS PER METER CUBED (STD ERROR)

DATE	Engraulidae Eggs	Bothidae Eggs	Sciaenidae Eggs	Other Fish Eggs
24MAR82	0.00 ( . )	0.01 (0.01)	0.00 ( . )	0.00 ( . )
24APR82	0.00 ( . )	0.00 (0.00)	0.05 ( 0.04)	0.25 ( 0.03)
23MAY82	56.59 ( 14.88)	0.00 ( . )	0.63 ( 0.36)	0.00 ( . )
29MAY82	2.17 ( 1.20)	0.00 (0.00)	0.11 ( 0.09)	0.11 ( 0.11)
11JUN82	0.46 ( 0.26)	0.00 ( . )	0.11 ( 0.04)	0.01 ( 0.01)
22JUN82	4.56 ( 2.75)	0.00 ( . )	3.35 ( 1.59)	6.96 ( 1.78)
12JUL82	13.31 ( 4.48)	0.00 ( . )	3.04 ( 1.42)	0.26 ( 0.26)
30JUL82	9.51 ( 1.14)	0.00 ( . )	1.39 ( 0.86)	0.00 ( . )
06AUG82	12.47 ( 6.30)	0.00 ( . )	9.47 ( 2.86)	0.00 ( . )
18AUG82	0.52 ( 0.24)	0.00 ( . )	1.51 ( 0.40)	0.06 ( 0.06)
31AUG82	0.02 ( 0.02)	0.00 ( . )	0.04 ( 0.04)	0.00 ( . )
23SEP82	0.01 ( 0.01)	0.00 ( . )	0.00 ( . )	0.00 ( . )
06OCT82	0.00 ( . )	0.02 (0.02)	0.02 ( 0.02)	0.00 ( . )
20OCT82	0.02 ( 0.02)	0.00 ( . )	0.02 ( 0.02)	0.00 ( . )
10MAR83	0.00 ( . )	0.00 ( . )	0.02 ( 0.01)	0.00 ( . )
14APR83	0.00 ( . )	0.02 (0.02)	0.00 ( . )	0.00 ( . )
24APR83	0.14 ( 0.05)	0.00 ( . )	0.00 ( . )	0.01 ( 0.01)
26MAY83	21.04 ( 3.90)	0.02 (0.01)	0.00 ( . )	0.00 ( . )
30MAY83	26.69 ( 10.69)	0.00 ( . )	0.00 ( . )	0.00 ( . )
21JUN83	1.99 ( 0.54)	0.00 ( . )	0.95 ( 0.23)	0.02 ( 0.02)
12JUL83	116.55 ( 26.59)	0.00 ( . )	1.63 ( 0.64)	1.74 ( 0.76)
24JUL83	31.68 ( 2.76)	0.00 ( . )	9.12 ( 2.59)	0.00 ( . )
12AUG83	1.18 ( 0.77)	0.00 ( . )	0.58 ( 0.32)	0.28 ( 0.16)
25AUG83	0.58 ( 0.05)	0.00 ( . )	0.72 ( 0.48)	0.00 ( . )
13SEP83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.02 ( 0.02)
26SEP83	0.00 ( . )	0.00 ( . )	0.02 ( 0.02)	0.00 ( . )
20OCT83	0.00 ( . )	0.00 ( . )	0.02 ( 0.02)	0.00 ( . )

Table A3. (Continued)

FISH EGGS  
SUMMARY OF TOWS AT STATION 6  
MLAN OF 4 353 U OBLIQUE TOWS IN NOS PER METER CUBED (STD ERROR)

DATE	Engraulidae Eggs	Bothidae Eggs	Sciaenidae Eggs	Other Fish Eggs
29APR82	0.00 ( . )	0.01 (0.01)	0.00 ( . )	0.02 ( 0.01)
29MAY82	1.44 ( 1.08)	0.19 (0.11)	0.91 ( 0.48)	0.00 ( 0.00)
11JUN82	1.94 ( 0.89)	0.00 ( . )	0.25 ( 0.16)	0.23 ( 0.15)
22JUN82	10.06 ( 3.15)	0.00 ( . )	0.35 ( 3.10)	2.29 ( 0.79)
12JUL82	13.35 ( 2.05)	0.00 ( . )	2.17 ( 1.86)	0.51 ( 0.51)
31JUL82	3.47 ( 0.65)	0.00 ( . )	0.85 ( 0.27)	0.00 ( . )
06AUG82	20.13 ( 3.54)	0.00 ( . )	2.64 ( 2.63)	0.00 ( . )
19AUG82	0.16 ( 0.16)	0.00 ( . )	0.00 ( . )	0.00 ( . )
31AUG82	0.04 ( 0.04)	0.00 ( . )	0.04 ( 0.04)	0.00 ( . )
20SEP82	0.18 ( 0.04)	0.00 ( . )	0.01 ( 0.01)	0.00 ( . )
23SEP82	0.22 ( 0.05)	0.00 ( . )	0.00 ( . )	0.00 ( . )
06OCT82	0.01 ( 0.01)	0.00 ( . )	0.00 ( . )	0.00 ( . )
06APR83	0.00 ( . )	0.02 (0.02)	0.00 ( . )	0.00 ( . )
29APR83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.05 ( 0.02)
29MAY83	8.60 ( 0.96)	0.00 ( . )	0.00 ( . )	0.00 ( . )
30MAY83	8.87 ( 0.79)	0.00 ( . )	0.11 ( 0.08)	0.00 ( . )
21JUN83	1.95 ( 0.25)	0.00 ( . )	2.04 ( 0.92)	1.20 ( 0.25)
12JUL83	6.82 ( 0.27)	0.00 ( . )	2.74 ( 0.52)	0.45 ( 0.07)
29JUL83	3.17 ( 0.63)	0.00 ( . )	0.69 ( 0.20)	0.25 ( 0.17)
12AUG83	1.17 ( 0.27)	0.00 ( . )	0.43 ( 0.10)	0.00 ( . )
25AUG83	4.33 ( 1.01)	0.00 ( . )	1.85 ( 0.41)	0.00 ( . )
13SEP83	4.50 ( 0.13)	0.00 ( . )	0.00 ( . )	0.00 ( . )
23NOV83	0.00 ( . )	0.00 ( . )	0.02 ( 0.02)	0.00 ( . )

Table A3 (Continued)

FISH EGGS  
SUMMARY OF TOWS AT STATION 7  
MEAN OF 4 353 U OBLIQUE TOWS IN NOS PER METER CUBED (STD ERROR)

DATE	Engraulidae Eggs	Bothidae Eggs	Sciaenidae Eggs	Other Fish Eggs
29APR82	0.00 ( . )	0.00 (0.00)	0.00 ( . )	0.04 ( 0.04)
29MAY82	8.02 ( 4.64)	0.00 ( . )	0.04 ( 0.03)	2.96 ( 2.96)
29MAY82	5.99 ( 1.68)	0.00 ( . )	0.06 ( 0.02)	0.26 ( 0.25)
17JUN82	0.17 ( 0.17)	0.00 ( . )	0.23 ( 0.22)	1.02 ( 0.50)
22JUN82	2.89 ( 0.83)	0.00 ( . )	0.55 ( 0.43)	1.08 ( 0.29)
13JUL82	20.01 ( 8.24)	0.00 ( . )	0.47 ( 0.21)	9.29 ( 9.29)
31JUL82	0.90 ( 0.33)	0.00 ( . )	0.12 ( 0.06)	0.00 ( . )
06AUG82	0.34 ( 0.10)	0.00 ( . )	1.25 ( 0.37)	0.16 ( 0.16)
19AUG82	0.00 ( . )	0.00 ( . )	0.05 ( 0.03)	0.00 ( . )
31AUG82	0.01 ( 0.01)	0.00 ( . )	0.01 ( 0.01)	0.00 ( . )
17SEP82	0.04 ( 0.01)	0.00 ( . )	0.01 ( 0.01)	0.00 ( . )
23SEP82	0.01 ( 0.01)	0.00 ( . )	0.01 ( 0.01)	0.00 ( . )
29JAN83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.02 ( 0.02)
07FEB83	0.01 ( 0.01)	0.00 ( . )	0.00 ( . )	0.00 ( . )
06MAR83	0.00 ( . )	0.01 (0.01)	0.00 ( . )	0.00 ( . )
06APR83	0.02 ( 0.02)	0.00 ( . )	0.00 ( . )	0.00 ( . )
29MAY83	1.08 ( 0.18)	0.00 ( . )	0.00 ( . )	0.00 ( . )
30MAY83	0.63 ( 0.01)	0.00 ( . )	0.00 ( . )	0.00 ( . )
21JUN83	3.58 ( 0.38)	0.00 ( . )	0.64 ( 0.30)	4.50 ( 0.91)
12JUL83	37.23 ( 1.70)	0.00 ( . )	1.43 ( 0.33)	0.00 ( . )
29JUL83	10.11 ( 0.55)	0.00 ( . )	1.27 ( 0.46)	0.00 ( . )
12AUG83	0.06 ( 0.06)	0.00 ( . )	0.17 ( 0.10)	0.03 ( 0.03)
25AUG83	0.72 ( 0.16)	0.00 ( . )	0.28 ( 0.13)	0.00 ( . )
13SEP83	0.00 ( . )	0.00 ( . )	0.03 ( 0.03)	0.00 ( . )



Table A3. (Continued)

FISH EGGS  
SUMMARY OF TOWS AT STATION 8  
MEAN OF 4 353 H NEUSTON TOWS IN NOS PER METER CUBED (STD ERROR)

DATE	Engraulidae Eggs	Bothidae Eggs	Sciaenidae Eggs	Other Fish Eggs
17MAR82	0.00 ( . )	0.09 (0.06)	0.00 ( . )	0.02 ( 0.02)
30MAR82	0.00 ( . )	7.60 (1.55)	0.00 ( 0.00)	0.00 ( . )
22APR82	0.00 ( . )	2.63 (1.29)	0.49 ( 0.49)	0.01 ( 0.01)
7MAY82	795.40 (156.73)	0.00 ( . )	0.21 ( 0.05)	0.00 ( . )
30JUN82	31.73 ( 15.36)	0.14 (0.09)	57.60 ( 17.77)	0.00 ( . )
22JUL82	1.36 ( 0.42)	0.00 ( . )	40.77 ( 5.38)	0.01 ( 0.01)
12AUG82	1.63 ( 0.72)	0.00 ( . )	8.53 ( 2.12)	0.00 ( . )
04SEP82	0.05 ( 0.01)	0.00 ( . )	0.68 ( 0.08)	0.00 ( . )
20OCT82	0.00 ( . )	0.00 ( . )	0.34 ( 0.03)	0.00 ( . )
18NOV82	0.00 ( . )	0.00 ( . )	0.02 ( 0.00)	0.00 ( . )
30NOV82	0.00 ( . )	0.00 ( . )	0.06 ( 0.04)	0.00 ( . )
26JAN83	0.00 ( . )	0.00 ( . )	0.00 ( 0.00)	0.00 ( . )
09FEB83	0.00 ( . )	0.00 ( . )	0.01 ( 0.01)	0.00 ( . )
30MAR83	0.00 ( . )	0.00 ( . )	1.39 ( 0.25)	0.00 ( . )
14APR83	0.00 ( . )	0.10 (0.02)	0.00 ( . )	0.00 ( . )
1MAY83	57.37 ( 5.60)	0.00 ( . )	0.05 ( 0.02)	0.04 ( 0.01)
16JUN83	8.92 ( 1.56)	0.04 (0.02)	2.81 ( 0.65)	20.96 ( 5.94)
08JUL83	86.43 ( 42.19)	1.79 (1.79)	3.79 ( 3.13)	40.01 ( 4.59)
11AUG83	22.85 ( 5.63)	0.00 ( . )	24.79 ( 5.46)	0.00 ( . )
07SEP83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.03 ( 0.02)
07NOV83	0.00 ( . )	0.00 ( . )	0.00 ( 0.00)	0.10 ( 0.02)
31NOV83	0.00 ( . )	0.02 (0.00)	0.00 ( . )	0.00 ( . )

Table A3. (Continued)

FISH EGGS				
SUMMARY OF TOWS AT STATION 8				
MEAN OF 4 353 U OBLIQUE TOWS IN NOS PER METER CUBED (STD ERROR)				
DATE	Engraulidae Eggs	Bothidae Eggs	Sciaenidae Eggs	Other Fish Eggs
17MAR82	0.00 ( . )	0.12 (0.05)	0.00 ( . )	0.02 ( 0.02)
30MAR82	0.00 ( . )	1.50 (0.32)	0.00 ( . )	0.24 ( 0.16)
22APR82	0.00 ( . )	0.75 (0.40)	0.00 ( . )	0.05 ( 0.04)
14MAY82	38.34 ( 6.76)	0.00 ( . )	0.44 ( 0.10)	0.00 ( . )
30JUN82	18.54 ( 7.24)	0.36 (0.34)	14.76 ( 6.69)	0.08 ( 0.06)
22JUL82	0.85 ( 0.31)	0.00 ( . )	13.64 ( 1.99)	0.00 ( . )
12AUG82	0.00 ( . )	0.01 (0.01)	30.90 ( 27.58)	0.08 ( 0.08)
05SEP82	0.61 ( 0.48)	0.00 ( . )	0.70 ( 0.13)	0.00 ( . )
20OCT82	0.00 ( . )	0.00 ( . )	0.20 ( 0.08)	0.00 ( . )
26JAN83	0.00 ( . )	0.01 (0.01)	0.00 ( . )	0.00 ( . )
09FEB83	0.00 ( . )	0.02 (0.01)	0.00 ( . )	0.00 ( . )
30MAR83	0.01 ( 0.01)	0.00 ( . )	0.89 ( 0.09)	0.00 ( . )
21APR83	0.00 ( . )	0.00 ( . )	0.83 ( 0.08)	0.00 ( . )
19MAY83	11.01 ( 4.36)	0.00 ( . )	5.05 ( 5.05)	0.00 ( . )
16JUN83	44.44 ( 77.16)	0.00 ( . )	2.08 ( 1.67)	30.97 (24.61)
08JUL83	33.26 ( 7.13)	1.87 (1.87)	3.72 ( 0.97)	38.97 ( 9.04)
11AUG83	3.28 ( 0.72)	0.00 ( . )	4.05 ( 0.74)	0.00 ( . )
26SEP83	0.00 ( . )	0.00 ( . )	0.03 ( 0.03)	0.00 ( . )
02NOV83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.09 ( 0.01)
23NOV83	0.00 ( . )	0.09 (0.04)	0.00 ( . )	0.00 ( . )

Table A3. (Continued)

FISH EGGS				
SUMMARY OF TONS AT STATION 9				
MEAN OF 4 353 U NEUSTON TONS IN NOS PER METER CUBED (STD ERROR)				
DATE	Engraulidae Eggs	Bothidae Eggs	Sclaeidae Eggs	Other Fish Eggs
1/MAR82	0.00 ( . )	3.74 (1.73)	0.00 ( . )	0.00 ( . )
3/MAR82	0.00 ( . )	0.12 (0.07)	0.07 ( 0.07 )	0.00 ( . )
19/MAR82	138.03 ( 31.09 )	0.00 ( . )	0.00 ( . )	0.00 ( . )
3/JUN82	127.79 ( 14.11 )	0.00 ( . )	35.82 ( 1.76 )	0.00 ( . )
22/JUL82	78.45 ( 33.68 )	0.00 ( . )	130.68 ( 69.56 )	0.00 ( . )
12/AUG82	3.76 ( 0.81 )	0.00 ( . )	11.22 ( 2.55 )	0.43 ( 0.31 )
09/SEP82	0.00 ( 0.00 )	0.00 ( . )	0.83 ( 0.74 )	0.00 ( . )
04/OCT82	0.00 ( . )	0.00 ( . )	0.23 ( 0.05 )	0.00 ( . )
18/OVB82	0.00 ( . )	0.00 ( . )	0.01 ( 0.01 )	0.00 ( . )
09/FEB83	0.00 ( 0.00 )	0.00 ( . )	0.01 ( 0.00 )	0.00 ( . )
30/MAR83	0.00 ( . )	2.82 (0.63)	0.00 ( . )	0.00 ( . )
21/APR83	0.03 ( 0.02 )	0.00 ( . )	0.06 ( 0.02 )	0.00 ( . )
19/MAY83	17.68 ( 1.61 )	0.00 ( . )	0.47 ( 0.13 )	0.40 ( 0.03 )
16/JUN83	23.61 ( 2.05 )	0.00 ( . )	0.16 ( 0.06 )	0.00 ( . )
06/JUL83	127.84 ( 37.08 )	0.01 (0.01)	3.43 ( 0.65 )	95.17 (37.83)
11/AUG83	0.05 ( 0.03 )	0.00 ( . )	6.12 ( 0.70 )	0.00 ( . )
05/SEP83	0.00 ( . )	0.00 ( . )	0.15 ( 0.04 )	0.03 ( 0.03 )
02/OVB83	0.00 ( . )	0.06 (0.00)	0.00 ( . )	0.00 ( . )

Table A3. (Continued)

FISH EGGS				
SUMMARY OF TOWS AT STATION 9				
MEAN OF 4 353 U OBLIQUE TOWS IN NOS PER METER CUBED (STD ERROR)				
DATE	Engraulidae Eggs	Bothidae Eggs	Sciaenidae Eggs	Other Fish Eggs
17MAR82	0.00 ( . )	3.09 (0.10)	0.00 ( . )	0.00 ( . )
30MAR82	0.07 ( 0.07)	1.53 (0.26)	0.00 ( . )	0.00 ( . )
14MAY82	146.43 ( 23.41)	0.00 ( . )	0.02 ( 0.01)	0.00 ( . )
30JUN82	45.54 ( 3.34)	0.00 ( . )	6.57 ( 1.09)	0.00 ( . )
22JUL82	41.06 ( 8.38)	0.00 ( . )	13.00 ( 1.84)	0.00 ( . )
12AUG82	1.15 ( 0.66)	0.23 (0.20)	7.02 ( 1.22)	3.76 ( 1.39)
04SEP82	0.50 ( 0.40)	0.00 ( . )	0.05 ( 0.05)	0.00 ( . )
20OCT82	0.00 ( . )	0.00 ( . )	0.38 ( 0.10)	0.00 ( . )
16NOV82	0.02 ( 0.01)	0.00 ( . )	0.02 ( 0.01)	0.00 ( . )
04FEB83	0.00 ( . )	0.00 ( . )	0.01 ( 0.01)	0.00 ( . )
21FEB83	0.00 ( . )	0.00 ( . )	0.09 ( 0.02)	0.00 ( . )
30MAR83	0.00 ( . )	0.73 (0.05)	0.00 ( . )	0.00 ( . )
21APR83	0.00 ( . )	0.00 ( . )	1.18 ( 0.11)	0.00 ( . )
27APR83	0.00 ( . )	0.00 ( . )	0.57 ( 0.09)	0.00 ( . )
14MAY83	8.17 ( 1.15)	0.01 (0.01)	0.35 ( 0.06)	0.19 ( 0.04)
16JUN83	20.98 ( 7.02)	0.00 ( . )	0.30 ( 0.26)	0.00 ( . )
04JUL83	194.19 ( 46.40)	0.00 ( . )	1.85 ( 1.04)	141.87 (42.14)
04JUL83	542.51 (233.97)	0.74 (0.34)	1286.66 (190.58)	0.00 ( . )
11AUG83	1.34 ( 0.69)	0.00 ( . )	5.93 ( 1.59)	0.00 ( . )
26AUG83	0.00 ( . )	0.00 ( . )	2.28 ( 0.61)	0.00 ( . )
03SEP83	0.00 ( . )	0.00 ( . )	0.08 ( 0.04)	0.04 ( 0.02)
03OCT83	0.00 ( . )	0.04 (0.02)	0.00 ( . )	0.00 ( . )
02NOV83	0.00 ( . )	0.04 (0.04)	0.00 ( . )	0.00 ( . )
10NOV83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.02 ( 0.02)

Table A3. (Continued)

FISH EGGS				
SUMMARY OF TOWS AT STATION 10				
MEAN OF 4 353 U NEUSTON TOWS IN NOS PER METER CUBED (STD ERROR)				
DATE	Engraulidae Eggs	Bothidae Eggs	Sciaenidae Eggs	Other Fish Eggs
11/11/82	0.00 ( . )	0.00 (0.00)	0.00 ( . )	0.00 ( . )
20/11/82	0.00 ( . )	0.00 ( . )	0.02 ( 0.00)	0.00 ( . )
22/11/82	0.00 ( . )	0.00 ( . )	0.58 ( 0.10)	0.00 ( . )
15/12/82	777.46 ( 51.06)	0.00 ( . )	6.94 ( 2.33)	0.00 ( . )
20/12/82	44.09 ( 15.19)	0.00 ( . )	0.43 ( 0.14)	0.01 ( 0.01)
22/12/82	235.22 ( 130.27)	0.00 ( . )	29.17 ( 8.85)	0.00 ( . )
12/01/83	61.84 ( 12.57)	0.00 ( . )	0.28 ( 0.07)	0.00 ( . )
15/01/83	2.53 ( 1.40)	0.01 (0.01)	1.87 ( 0.48)	0.00 ( . )
18/01/83	0.00 ( . )	0.00 ( . )	0.03 ( 0.01)	0.00 ( . )
20/01/83	0.00 ( . )	0.02 (0.01)	0.00 ( . )	0.00 ( . )
22/01/83	0.00 ( . )	0.00 ( . )	0.00 ( 0.00)	0.00 ( . )
24/01/83	0.00 ( 0.00)	0.03 (0.01)	0.00 ( . )	0.00 ( . )
26/01/83	24.35 ( 2.39)	0.00 ( . )	0.00 ( . )	0.00 ( . )
28/01/83	38.41 ( 6.06)	0.00 ( . )	0.15 ( 0.07)	0.03 ( 0.01)
30/01/83	75.21 ( 12.78)	0.01 (0.01)	2.12 ( 0.83)	23.08 ( 5.62)
01/02/83	24.18 ( 1.96)	0.00 ( . )	2.35 ( 0.64)	0.00 ( . )
03/02/83	0.00 ( . )	0.00 ( . )	7.77 ( 0.26)	1.61 ( 1.61)
05/02/83	0.00 ( . )	0.17 (0.04)	0.76 ( 0.08)	0.00 ( . )
07/02/83	0.00 ( . )	0.02 (0.01)	0.01 ( 0.01)	0.00 ( . )
09/02/83	0.00 ( . )	0.02 (0.01)	0.00 ( . )	0.00 ( . )

Table A3. (Continued)

FISH EGGS  
SUMMARY OF TOWS AT STATION 10  
MEAN OF 4 353 U OBLIQUE TOWS IN NOS PER METER CUBED (STD ERROR)

LATE	Engraulidae Eggs	Bothidae Eggs	Scleroptera Eggs	Other Fish Eggs
17MAR82	0.00 ( . )	0.43 (0.20)	0.00 ( . )	0.00 ( . )
30MAR82	0.00 ( . )	0.21 (0.02)	0.00 ( . )	0.00 ( . )
22APR82	0.00 ( . )	0.00 ( . )	0.94 ( 0.10)	0.00 ( . )
19MAY82	64.35 ( 4.57)	0.00 ( . )	33.11 ( 9.69)	0.00 ( . )
30JUN82	70.73 ( 16.63)	0.00 ( . )	3.26 ( 0.32)	0.14 ( 0.06)
30MAR83	0.00 ( . )	0.00 ( . )	0.17 ( 0.06)	0.20 ( 0.20)
21APR83	0.01 ( 0.01)	0.00 ( . )	0.70 ( 0.32)	0.00 ( 0.00)
17MAY83	7.71 ( 2.51)	0.00 ( . )	6.06 ( 2.56)	0.10 ( 0.10)
16JUN83	202.23 (187.28)	0.00 ( . )	13.55 ( 11.79)	0.00 ( . )
08JUL83	89.85 ( 8.21)	0.00 ( . )	5.39 ( 0.76)	0.00 ( . )
11AUG83	19.70 ( 7.37)	0.00 ( . )	10.48 ( 4.02)	0.00 ( . )
05SEP83	0.00 ( . )	0.00 ( . )	0.59 ( 0.27)	0.00 ( . )
07OCT83	0.00 ( . )	0.25 (0.02)	0.00 ( . )	0.00 ( . )
04NOV83	0.00 ( . )	0.02 (0.02)	0.12 ( 0.04)	0.00 ( . )
11DEC83	0.00 ( . )	0.02 (0.02)	0.00 ( . )	0.00 ( . )

Table A3.: (Continued)

FISH EGGS  
SUMMARY OF TOWS AT STATION DS  
MEAN LF 4 353 U HEUSTON TOWS IN NOS PER METER CUBED (STD ERROR)

DATE	Engraulidae Eggs	Bothidae Eggs	Sciaenidae Eggs	Other Fish Eggs
17MAR82	0.00 ( . )	0.00 ( . )	0.00 ( . )	1.24 ( 0.50)
30MAR82	0.31 ( 0.31)	0.00 ( . )	0.00 ( . )	0.06 ( 0.28)
11APR82	0.00 ( . )	1.10 (0.11)	0.00 ( . )	0.00 ( . )
16MAY82	0.54 ( 0.34)	0.00 (0.00)	1.03 ( 0.09)	0.00 ( 0.00)
29JUN82	1.58 ( 0.50)	0.00 (0.00)	0.39 ( 0.11)	0.00 ( 0.00)
2JUL82	0.04 ( 0.02)	0.21 (0.08)	4.77 ( 1.56)	0.01 ( 0.01)
11AUG82	0.00 ( . )	0.00 ( . )	1.66 ( 0.66)	0.01 ( 0.01)
05SEP82	0.00 ( . )	0.36 (0.11)	13.20 ( 5.42)	0.00 ( . )
19OCT82	0.00 ( . )	0.00 ( . )	2.84 ( 0.32)	0.00 ( . )
17NOV82	0.01 ( 0.01)	0.12 (0.10)	0.86 ( 0.24)	0.00 ( . )
30NOV82	0.01 ( 0.01)	0.01 (0.01)	0.19 ( 0.19)	0.00 ( . )
06FEB83	0.00 ( . )	0.00 ( . )	0.00 ( 0.00)	0.00 ( . )
29FEB83	0.00 ( . )	0.10 (0.01)	0.00 ( . )	0.00 ( . )
2JAPR83	0.00 ( . )	0.05 (0.01)	0.00 ( . )	0.00 ( . )
18MAR83	0.84 ( 0.18)	0.00 ( . )	3.61 ( 0.62)	0.11 ( 0.07)
14JUN83	3.07 ( 0.88)	0.42 (0.07)	18.93 ( 1.30)	0.00 ( . )
07JUL83	1.18 ( 0.91)	0.00 ( . )	0.93 ( 0.24)	0.00 ( . )
11AUG83	0.19 ( 0.05)	0.00 ( . )	1.00 ( 0.19)	0.00 ( . )
19SEP83	0.00 ( . )	0.00 ( . )	2.03 ( 0.29)	0.06 ( 0.02)
10OCT83	0.00 ( 0.00)	0.00 (0.00)	0.01 ( 0.01)	0.01 ( 0.00)

Table A3. (Continued)

FISH EGGS  
SUMMARY OF TOWS AT STATION DS  
MEAN OF 4 353 U OBLIQUE TOWS IN NOS PER METER CUBED (STD ERROR)

DATE	Engraulidae 1995	Bothidae Eggs	Sciaenidae Eggs	Other Fish Eggs
17MAR82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.08 ( 0.01)
30MAR82	0.00 ( . )	0.40 (0.16)	0.04 ( 0.04)	0.10 ( 0.07)
21APR82	0.00 ( . )	0.30 (0.18)	0.00 ( . )	0.00 ( . )
1MAY82	0.13 ( 0.05)	0.04 (0.02)	2.24 ( 0.27)	0.02 ( 0.02)
29JUN82	0.65 ( 0.21)	0.00 ( . )	2.40 ( 0.78)	0.02 ( 0.02)
21JUL82	0.01 ( 0.01)	0.08 (0.08)	0.99 ( 0.30)	0.02 ( 0.02)
11AUG82	0.02 ( 0.02)	0.00 ( . )	8.40 ( 5.41)	0.00 ( . )
06SEP82	0.00 ( . )	0.77 (0.53)	3.75 ( 0.35)	0.00 ( . )
19OCT82	0.00 ( . )	0.00 ( . )	1.40 ( 0.24)	0.00 ( . )
17NOV82	0.00 ( . )	0.00 ( . )	0.32 ( 0.09)	0.01 ( 0.01)
30NOV82	0.00 ( . )	0.00 ( . )	0.14 ( 0.14)	0.00 ( . )
29FAN83	0.00 ( . )	0.01 (0.01)	0.00 ( . )	0.00 ( . )
23FAN83	0.09 ( 0.08)	0.16 (0.07)	0.04 ( 0.04)	0.00 ( . )
18MAY83	0.41 ( 0.05)	0.00 ( . )	0.62 ( 0.17)	0.01 ( 0.01)
14JUN83	7.75 ( 1.20)	0.24 (0.05)	3.39 ( 0.49)	0.01 ( 0.01)
07JUL83	0.41 ( 0.05)	0.00 ( . )	1.22 ( 0.31)	0.00 ( . )
10AUG83	0.35 ( 0.22)	0.00 ( . )	2.13 ( 0.51)	0.00 ( . )
19SEP83	0.18 ( 0.11)	0.06 (0.06)	0.63 ( 0.25)	0.00 ( . )
10OCT83	0.00 ( . )	0.01 (0.01)	0.00 ( . )	0.00 ( . )



Table A3. (Continued)

FLATFISHES					
SUMMARY OF TONS AT STATION 1					
MEAN OF 4 353 U OBLIQUE TONS IN NOS PER METER CUBED (STD ERROR)					
DATE	Etmopus microstomus	Paralichthys dentatus	Scophthalmus aquosus	Trinectes maculatus	
30APR82	0.00 ( . )	0.00 ( . )	0.01 (0.01)	0.00 ( . )	
08JUN82	0.01 (0.01)	0.00 ( . )	0.03 (0.03)	0.00 ( . )	
30JUL82	0.00 ( . )	0.00 ( . )	0.02 (0.01)	0.01 (0.01)	
04AUG82	0.00 ( . )	0.00 ( . )	0.18 (0.18)	0.00 ( . )	
18AUG82	0.48 (0.15)	0.00 ( . )	0.06 (0.04)	0.00 ( . )	
30AUG82	0.25 (0.14)	0.00 ( . )	0.05 (0.05)	0.04 (0.04)	
16SEP82	0.14 (0.12)	0.00 ( . )	0.07 (0.07)	0.00 ( . )	
15OCT82	0.04 (0.03)	0.00 ( . )	0.00 ( . )	0.00 ( . )	
11NOV82	0.00 ( . )	0.00 ( . )	0.05 (0.03)	0.00 ( . )	
24NOV82	0.00 ( . )	0.00 ( . )	0.04 (0.04)	0.00 ( . )	
11APR83	0.01 (0.01)	0.00 ( . )	0.00 ( . )	0.00 ( . )	
27APR83	0.00 ( . )	0.00 ( . )	0.12 (0.12)	0.00 ( . )	
11MAY83	0.01 (0.01)	0.00 ( . )	0.00 ( . )	0.00 ( . )	
24JUN83	0.00 ( . )	0.00 ( . )	0.11 (0.11)	0.00 ( . )	
13JUL83	0.00 ( . )	0.00 ( . )	2.31 (1.48)	0.10 (0.10)	
28JUL83	0.37 (0.23)	0.00 ( . )	0.00 ( . )	0.00 ( . )	
09AUG83	0.10 (0.06)	0.00 ( . )	0.00 ( . )	0.00 ( . )	
26AUG83	0.31 (0.31)	0.00 ( . )	0.75 (0.20)	0.00 ( . )	
12SEP83	0.00 ( . )	0.00 ( . )	0.02 (0.02)	0.00 ( . )	
19NOV83	0.00 ( . )	0.00 ( . )	0.00 (0.00)	0.00 ( . )	

FLATFISHES					
SUMMARY OF TONS AT STATION 2					
MEAN OF 4 353 U OBLIQUE TONS IN NOS PER METER CUBED (STD ERROR)					
DATE	Etmopus microstomus	Paralichthys dentatus	Scophthalmus aquosus	Trinectes maculatus	
29APR82	0.00 ( . )	0.00 ( . )	0.01 (0.00)	0.00 ( . )	
08JUN82	0.00 ( . )	0.00 ( . )	0.01 (0.01)	0.00 ( . )	
30JUL82	0.00 ( . )	0.00 ( . )	0.01 (0.01)	0.00 ( . )	
04AUG82	0.13 (0.13)	0.00 ( . )	0.00 ( . )	0.00 ( . )	
15OCT82	0.15 (0.03)	0.00 ( . )	0.00 ( . )	0.00 ( . )	
31JAN83	0.01 (0.01)	0.00 ( . )	0.00 ( . )	0.00 ( . )	
13JUL83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( . )	
28JUL83	0.00 ( . )	0.00 ( . )	0.12 (0.12)	0.12 (0.03)	
09AUG83	0.00 ( . )	0.00 ( . )	0.07 (0.05)	0.06 (0.06)	
12SEP83	0.03 (0.02)	0.00 ( . )	0.19 (0.14)	0.00 ( . )	

Table A3. (Continued)

FLATFISHES

SUMMARY OF TONS AT STATION 3

MEAN OF 4 353 U OBLIQUE TONS IN NOS PER METER CUBED (STD ERROR)

DATE	Etropus microstomus	Paralichthys dentatus	Scophthalmus aquosus	Trinectes maculatus
22APR82	0.00 ( . )	0.00 ( . )	0.00 (0.00)	0.00 ( . )
29APR82	0.00 ( . )	0.00 (0.00)	0.00 (0.00)	0.00 ( . )
30MAY82	0.00 ( . )	0.00 ( . )	0.01 (0.01)	0.00 ( . )
30JUL82	0.01 (0.01)	0.00 ( . )	0.16 (0.16)	0.00 ( . )
18AUG82	0.33 (0.32)	0.00 ( . )	0.01 (0.01)	0.00 ( . )
30AUG82	0.03 (0.02)	0.00 ( . )	0.05 (0.05)	0.00 ( . )
07OCT82	0.04 (0.02)	0.00 ( . )	0.00 ( . )	0.00 ( . )
24JUN83	0.00 ( . )	0.00 ( . )	0.02 (0.02)	0.00 ( . )
13JUL83	0.00 ( . )	0.00 ( . )	0.42 (0.20)	0.00 ( . )
28JUL83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.06 (0.03)
09AUG83	0.57 (0.30)	0.00 ( . )	0.00 ( . )	0.00 ( . )
26AUG83	0.00 ( . )	0.00 ( . )	0.24 (0.18)	0.00 ( . )
12SEP83	0.00 ( . )	0.80 (0.80)	0.00 ( . )	0.00 ( . )

FLATFISHES

SUMMARY OF TONS AT STATION 4

MEAN OF 4 353 U OBLIQUE TONS IN NOS PER METER CUBED (STD ERROR)

DATE	Etropus microstomus	Paralichthys dentatus	Scophthalmus aquosus	Trinectes maculatus
22APR82	0.00 ( . )	0.00 (0.00)	0.00 ( . )	0.00 ( . )
29APR82	0.00 ( . )	0.00 ( . )	0.00 (0.00)	0.00 ( . )
12JUL82	0.00 ( . )	0.00 ( . )	0.01 (0.01)	0.00 ( . )
30JUL82	0.00 ( . )	0.00 ( . )	0.01 (0.01)	0.00 ( . )
09FEB83	0.00 ( . )	0.32 (0.02)	0.00 ( . )	0.00 ( . )
29JUL83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.07 (0.04)
26AUG83	0.00 ( . )	0.00 ( . )	0.06 (0.06)	0.00 ( . )

Table A3. (Continued)

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FLATFISHES

SUMMARY OF TONS AT STATION 5

MEAN OF 4 353 U OBLIQUE TONS IN NOS PER METER CUBED (STD ERROR)

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DATE	Etropus microstomus	Paralichthys dentatus	Scophthalmus aquosus	Trinectes maculatus
29APR82	0.00 ( . )	0.00 ( . )	0.02 (0.01)	0.00 ( . )
12JUL82	0.00 ( . )	0.00 ( . )	0.10 (0.10)	0.00 ( . )
06AUG82	0.00 ( . )	0.00 ( . )	0.01 (0.01)	0.00 ( . )
18AUG82	0.00 ( . )	0.00 ( . )	0.01 (0.01)	0.00 ( . )
06OCT82	0.01 (0.01)	0.00 ( . )	0.00 ( . )	0.00 ( . )
12JUL83	0.00 ( . )	0.00 ( . )	0.01 (0.01)	0.00 ( . )

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FLATFISHES

SUMMARY OF TONS AT STATION 6

MEAN OF 4 353 U OBLIQUE TONS IN NOS PER METER CUBED (STD ERROR)

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DATE	Etropus microstomus	Paralichthys dentatus	Scophthalmus aquosus	Trinectes maculatus
29JUL83	0.01 (0.01)	0.00 ( . )	0.00 ( . )	0.00 ( . )
12AUG83	0.00 ( . )	0.00 ( . )	0.08 (0.08)	0.00 ( . )
25AUG83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.02 (0.02)
13SEP83	0.02 (0.02)	0.00 ( . )	0.00 ( . )	0.00 ( . )

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FLATFISHES

SUMMARY OF TONS AT STATION 7

MEAN OF 4 353 U OBLIQUE TONS IN NOS PER METER CUBED (STD ERROR)

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DATE	Etropus microstomus	Paralichthys dentatus	Scophthalmus aquosus	Trinectes maculatus
31JUL82	0.00 ( . )	0.00 ( . )	0.01 (0.01)	0.00 ( . )
12JUL83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.21 (0.21)
25AUG83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.03 (0.02)
26SEP83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.02 (0.02)

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Table A3. (Continued)

FLATFISHES  
SUMMARY OF TOWS AT STATION 8  
MEAN OF 4 353 U NEUSTON TOWS IN NOS PER METER CUBED (STD ERROR)

DATE	Etopus microstomus	Paralichthys dentatus	Scophthalmus aquosus	Trinectes maculatus
30JUN82	0.00 ( . )	0.00 ( . )	0.00 (0.00)	0.00 ( . )
30NOV82	0.12 (0.12)	0.00 ( . )	0.00 ( . )	0.00 ( . )
08JUL83	0.00 (0.00)	0.00 ( . )	0.00 ( . )	0.00 ( . )

FLATFISHES  
SUMMARY OF TOWS AT STATION 8  
MEAN OF 4 353 U OBLIQUE TOWS IN NOS PER METER CUBED (STD ERROR)

DATE	Etopus microstomus	Paralichthys dentatus	Scophthalmus aquosus	Trinectes maculatus
22JUL82	0.00 ( . )	0.00 ( . )	0.06 (0.06)	0.00 ( . )
18NOV82	0.00 ( . )	0.00 ( . )	0.03 (0.03)	0.00 ( . )
26JAN83	0.00 ( . )	0.01 (0.01)	0.00 ( . )	0.00 ( . )
09FEB83	0.00 ( . )	0.01 (0.01)	0.00 ( . )	0.00 ( . )
19MAY83	0.00 ( . )	0.00 ( . )	0.02 (0.02)	0.00 ( . )
08JUL83	0.00 ( . )	0.00 ( . )	0.11 (0.07)	0.00 ( . )
21AUG83	0.00 ( . )	0.00 ( . )	0.04 (0.02)	0.00 ( . )
10OCT83	0.00 ( . )	0.00 ( . )	0.04 (0.04)	0.00 ( . )

Table A3. (Continued)

FLATFISHES  
SUMMARY OF TONS AT STATION 9  
MEAN OF 4 353 U NEUSTON TONS IN NOS PER METER CUBED (STD ERROR)

DATE	Etropus microstomus	Paralichthys dentatus	Scophthalmus aquosus	Trinectes maculatus
18NOV82	0.00 ( . )	0.00 ( . )	0.01 (0.01)	0.00 ( . )
20SEP83	0.00 ( . )	0.00 ( . )	0.01 (0.01)	0.00 ( . )

FLATFISHES  
SUMMARY OF TONS AT STATION 9  
MEAN OF 4 353 U ORLIOUE TONS IN NOS PER METER CUBED (STD ERROR)

DATE	Etropus microstomus	Paralichthys dentatus	Scophthalmus aquosus	Trinectes maculatus
17MAR82	0.00 ( . )	0.00 ( . )	0.02 (0.02)	0.00 ( . )
22JUL82	0.01 (0.01)	0.00 ( . )	0.57 (0.22)	0.00 ( . )
12AUG82	0.00 ( . )	0.00 ( . )	0.53 (0.06)	0.00 ( . )
09SEP82	0.00 ( . )	0.00 ( . )	0.12 (0.05)	0.00 ( . )
20OCT82	0.00 ( . )	0.00 ( . )	0.01 (0.01)	0.00 ( . )
18NOV82	0.00 ( . )	0.00 ( . )	0.03 (0.02)	0.00 ( . )
11APR83	0.00 ( . )	0.00 ( . )	0.03 (0.03)	0.00 ( . )
17MAY83	0.00 ( . )	0.00 ( . )	0.03 (0.03)	0.00 ( . )
23JUL83	0.79 (0.45)	0.00 ( . )	8.42 (5.21)	0.00 ( . )
11AUG83	0.12 (0.10)	0.00 ( . )	0.00 ( . )	0.00 ( . )
26AUG83	0.00 ( . )	0.00 ( . )	0.37 (0.19)	0.00 ( . )
20SEP83	0.00 ( . )	0.13 (0.08)	0.00 ( . )	0.00 ( . )
23NOV83	0.00 ( . )	0.00 ( . )	0.01 (0.01)	0.00 ( . )

Table A3. (Continued)

FLATFISHES  
SUMMARY OF TOWS AT STATION 10  
MEAN UF 4 353 U NEUSTON TOWS IN NOS PER METER CUBED (STD ERROR)

DATE	Etropus microstomus	Paralichthys dentatus	Scophthalmus aquosus	Trinectes maculatus
19MAY83	0.00 ( . )	0.00 ( . )	0.00 (0.00)	0.00 ( . )
08JUL83	0.00 ( . )	0.00 ( . )	0.02 (0.01)	0.00 ( . )

FLATFISHES  
SUMMARY OF TOWS AT STATION 10  
MEAN UF 4 353 U OBLIQUE TOWS IN NOS PER METER CUBED (STD ERROR)

DATE	Etropus microstomus	Paralichthys dentatus	Scophthalmus aquosus	Trinectes maculatus
30JUN82	0.04 (0.04)	0.00 ( . )	0.01 (0.01)	0.00 ( . )
21APR83	0.00 ( . )	0.00 ( . )	0.06 (0.06)	0.00 ( . )
16JUN83	0.00 ( . )	0.00 ( . )	0.02 (0.02)	0.00 ( . )
11AUG83	0.05 (0.05)	0.00 ( . )	0.08 (0.08)	0.02 (0.02)

Table A3. (Continued)

FLATFISHES  
SUMMARY OF TONS AT STATION DS  
MEAN OF 4 353 U NEUSTON TONS IN NOS PER METER CUBED (STD ERROR)

DATE	Etropus microstomus	Paralichthys dentatus	Scophthalmus aquosus	Trinectes maculatus
29JUN82	0.01 (0.01)	0.00 ( . )	0.01 (0.01)	0.00 ( . )
08SEP82	0.03 (0.02)	0.00 ( . )	0.00 ( . )	0.00 ( . )
17NOV82	0.02 (0.02)	0.00 ( . )	0.00 ( . )	0.00 ( . )
18MAY83	0.00 ( . )	0.00 ( . )	0.00 (0.00)	0.00 ( . )
14JUN83	0.00 ( . )	0.00 ( . )	0.08 (0.06)	0.00 ( . )

FLATFISHES  
SUMMARY OF TONS AT STATION DS  
MEAN OF 4 353 U OBLIQUE TONS IN NOS PER METER CUBED (STD ERROR)

DATE	Etropus microstomus	Paralichthys dentatus	Scophthalmus aquosus	Trinectes maculatus
19JAN82	0.00 ( . )	0.01 (0.01)	0.00 ( . )	0.00 ( . )
21APR82	0.01 (0.01)	0.00 ( . )	0.00 ( . )	0.00 ( . )
18MAY82	0.00 ( . )	0.00 ( . )	0.01 (0.01)	0.00 ( . )
24JUN82	0.00 ( . )	0.00 ( . )	0.06 (0.04)	0.00 ( . )
21JUL82	0.00 ( . )	0.00 ( . )	0.02 (0.01)	0.00 ( . )
11AUG82	0.00 ( . )	0.00 ( . )	0.21 (0.12)	0.00 ( . )
08SEP82	0.05 (0.02)	0.00 ( . )	0.00 ( . )	0.00 ( . )
19OCT82	0.00 ( . )	0.00 ( . )	0.05 (0.02)	0.00 ( . )
17NOV82	0.00 ( . )	0.01 (0.01)	0.73 (0.22)	0.00 ( . )
30NOV82	0.00 ( . )	0.06 (0.04)	0.05 (0.05)	0.00 ( . )
18MAY83	0.00 ( . )	0.00 ( . )	0.01 (0.01)	0.00 ( . )
14JUN83	0.00 ( . )	0.00 ( . )	0.74 (0.12)	0.00 ( . )
07JUL83	0.00 ( . )	0.00 ( . )	0.03 (0.01)	0.00 ( . )
10AUG83	0.00 (0.00)	0.00 ( . )	0.00 ( . )	0.00 ( . )
18SEP83	0.01 (0.01)	0.00 ( . )	0.67 (0.17)	0.00 ( . )
10OCT83	0.00 ( . )	0.01 (0.01)	0.03 (0.02)	0.00 ( . )

Table A3. (Continued)

SCIAENIDS AND OTHER FISH  
SUMMARY OF TOWS AT STATION 1  
MEAN UF 4 353 U OBLIQUE TOWS IN NOS PER METER CUBED (STD ERROR)

DATE	Cynoscion regalis	Leiostomus xanthurus	Ammodytes hexapterus	Anchoa mitchell
16 FEB 82	0.00 ( . )	0.00 ( . )	0.02 (0.01)	0.00 ( . )
01 MAR 82	0.00 ( . )	0.00 ( . )	1.67 (0.10)	0.00 ( . )
03 APR 82	0.00 ( . )	0.00 ( . )	0.01 (0.00)	0.00 ( . )
04 APR 82	0.00 ( . )	0.01 (0.01)	0.00 ( . )	0.00 ( . )
08 JUN 82	0.00 (0.00)	0.00 ( . )	0.00 ( . )	2.90 (1.36)
21 JUN 82	0.00 ( . )	0.00 ( . )	0.01 (0.01)	0.01 (0.01)
12 JUL 82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.59 (0.25)
30 JUL 82	0.01 (0.01)	0.00 ( . )	0.00 ( . )	0.96 (0.11)
04 AUG 82	0.02 (0.02)	0.00 ( . )	0.00 ( . )	0.83 (0.09)
14 AUG 82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.06 (0.04)
16 SEP 82	0.03 (0.03)	0.00 ( . )	0.00 ( . )	0.02 (0.02)
15 OCT 82	0.00 ( . )	0.02 (0.02)	0.00 ( . )	0.00 ( . )
10 DEC 82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.03 (0.03)
24 JAN 83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 (0.00)
31 JAN 83	0.00 ( . )	0.00 ( . )	0.01 (0.01)	0.05 (0.03)
21 FEB 83	0.00 ( . )	0.00 ( . )	0.96 (0.20)	0.00 ( . )
10 MAR 83	0.00 ( . )	0.00 ( . )	0.20 (0.02)	0.00 ( . )
28 MAR 83	0.00 ( . )	0.00 ( . )	0.01 (0.01)	0.00 ( . )
11 APR 83	0.00 ( . )	0.00 ( . )	0.01 (0.01)	0.00 ( . )
24 JUN 83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.16 (0.15)
13 JUL 83	0.00 ( . )	0.00 ( . )	0.00 ( . )	13.82 (6.18)
28 JUL 83	0.02 (0.02)	0.00 ( . )	0.00 ( . )	18.36 (2.62)
09 AUG 83	0.00 ( . )	0.00 ( . )	0.17 (0.13)	0.39 (0.23)
26 AUG 83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.89 (0.52)
12 SEP 83	0.00 ( . )	0.00 ( . )	0.13 (0.06)	0.00 ( . )



AD-A165 341

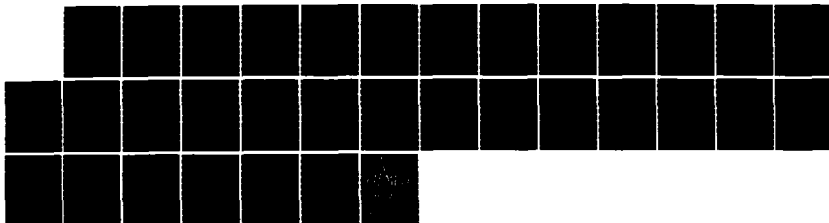
IMPORTANT MEROPLANKTON OF THE LOWER CHESAPEAKE BAY AND  
PROPOSED NORFOLK D. (U) OLD DOMINION UNIV NORFOLK VA  
APPLIED MARINE RESEARCH LAB A J BUTT ET AL. MAR 85  
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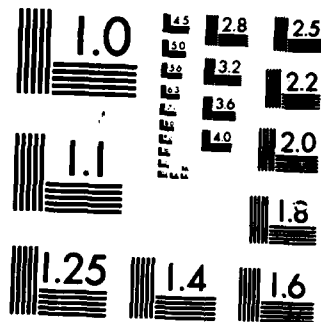
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Table A3. (Continued)

SCIAENIDS AND OTHER FISH  
SUMMARY OF TOWS AT STATION 2  
PLAN OF 4 353 U OBLIQUE TOWS IN NOS PER METER CUBED (STD ERROR)

DATE	Cynoscion regalis	Leiostomus xanthurus	Ammodytes hexapterus	Anchoa mitchelli
07MAR82	0.00 ( . )	0.00 ( . )	0.02 (0.01)	0.00 ( . )
22APR82	0.00 ( . )	0.01 (0.00)	0.00 ( . )	0.00 ( . )
04MAY82	0.00 ( . )	0.00 ( . )	0.04 (0.04)	2.45 ( 0.90)
30MAY82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.01 ( 0.01)
06JUN82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.41 ( 0.31)
21JUN82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.30 ( 0.16)
12JUL82	0.00 ( . )	0.00 ( . )	0.00 ( . )	2.25 ( 0.65)
30JUL82	0.03 (0.03)	0.00 ( . )	0.00 ( . )	2.13 ( 0.43)
04AUG82	0.12 (0.10)	0.00 ( . )	0.00 ( . )	2.96 ( 0.96)
16AUG82	0.00 ( . )	0.00 ( . )	0.00 ( . )	4.38 ( 0.44)
30AUG82	0.00 ( . )	0.00 ( . )	0.00 (0.00)	0.04 ( 0.03)
29OCT82	0.00 ( . )	0.00 ( . )	0.01 (0.01)	0.00 ( . )
10DEC82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.02 ( 0.01)
31JAN83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.07 ( 0.04)
28MAR83	0.00 ( . )	0.00 ( . )	0.02 (0.02)	0.00 ( . )
24JUN83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.14 ( 0.07)
13JUL83	0.00 ( . )	0.00 ( . )	0.00 ( . )	15.19 ( 2.30)
28JUL83	0.10 (0.08)	0.00 ( . )	0.00 ( . )	5.44 ( 2.91)
09AUG83	0.00 ( . )	0.00 ( . )	0.00 ( . )	1.34 ( 0.49)
26AUG83	0.00 ( . )	0.00 ( . )	0.11 (0.05)	0.00 ( . )

Table A3. (Continued)

SCIAENIDS AND OTHER FISH  
SUMMARY OF TONS AT STATION 3  
MEAN OF 4 353 U OBLIQUE TONS IN NOS PER METER CUBED (STD ERROR)

DATE	Cynoscion regalis	Leiostomus xanthurus	Ammodytes hexapterus	Anchoa mitchelli
05FAR82	0.00 ( . )	0.00 ( . )	0.08 (0.04)	0.00 ( . )
22APR82	0.00 ( . )	0.05 (0.03)	0.00 ( . )	0.00 ( . )
29APR82	0.00 ( . )	0.01 (0.01)	0.00 ( . )	0.00 ( . )
29FAY82	0.00 ( . )	0.00 ( . )	0.00 ( . )	7.81 ( 0.14)
30MAY82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.01 ( 0.01)
06JUN82	0.00 ( . )	0.00 ( . )	0.00 ( . )	1.35 ( 0.58)
21JUN82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.10 ( 0.04)
12JUL82	0.00 ( . )	0.00 ( . )	0.00 ( . )	2.76 ( 0.63)
30JUL82	0.00 ( . )	0.00 ( . )	0.00 ( . )	3.21 ( 1.13)
18AUG82	0.01 (0.01)	0.00 ( . )	0.00 ( . )	0.07 ( 0.07)
07OCT82	0.00 ( . )	0.01 (0.01)	0.00 ( . )	0.01 ( 0.01)
10OFC82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.01 ( 0.01)
31JAN83	0.00 ( . )	0.00 ( . )	0.20 (0.12)	0.00 ( 0.00)
09FEB83	0.00 ( . )	0.00 ( . )	0.10 (0.07)	0.00 ( . )
21FEB83	0.00 ( . )	0.00 ( . )	0.21 (0.03)	0.00 ( . )
24JUN83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.16 ( 0.05)
13JUL83	0.00 ( . )	0.00 ( . )	0.00 ( . )	6.85 ( 3.78)
26JUL83	0.77 (0.32)	0.00 ( . )	0.00 ( . )	3.46 ( 0.29)
26AUG83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.05 ( 0.05)
17SEP83	0.13 (0.13)	0.00 ( . )	0.00 ( . )	0.00 ( . )

Table A3. (Continued)

SCIAENIDS AND OTHER FISH  
SUMMARY OF TONS AT STATION 4  
MEAN OF 4 353 U OBLIQUE TONS IN NOS PER METER CUBED (STD ERROR)

DATE	Cynoscion regalis	Leiostomus xanthurus	Ammodytes hexapterus	Anchoa mitchelli
04MAR82	0.00 ( . )	0.00 ( . )	0.01 (0.01)	0.00 ( . )
22APR82	0.00 ( . )	0.02 (0.01)	0.00 (0.00)	0.00 ( . )
24MAY82	0.00 ( . )	0.00 ( . )	0.16 (0.16)	1.29 ( 0.82)
30MAY82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.09 ( 0.07)
03JUN82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.01 ( 0.01)
21JUN82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.14 ( 0.03)
12JUL82	0.00 ( . )	0.00 ( . )	0.00 ( . )	2.40 ( 0.40)
30JUL82	0.03 (0.02)	0.00 ( . )	0.00 ( . )	6.00 ( 3.30)
04AUG82	0.00 ( . )	0.00 ( . )	0.00 ( . )	9.63 ( 0.61)
10AUG82	0.00 ( . )	0.00 ( . )	0.00 ( . )	2.36 ( 0.80)
30AUG82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.11 ( 0.02)
10SEP82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.01 ( 0.01)
31JAN83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.05 ( 0.02)
09FEB83	0.00 ( . )	0.00 ( . )	0.01 (0.01)	0.01 ( 0.01)
13JUL83	0.02 (0.02)	0.00 ( . )	0.00 ( . )	5.16 ( 1.96)
29JUL83	0.00 ( . )	0.00 ( . )	0.00 ( . )	2.65 ( 0.63)
09AUG83	0.00 ( . )	0.00 ( . )	0.00 ( . )	9.18 ( 1.03)
20AUG83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.73 ( 0.17)
12SEP83	0.00 ( . )	0.00 ( . )	0.08 (0.05)	0.04 ( 0.04)

Table A3. (Continued)

SCIAENIDS AND OTHER FISH  
SUMMARY OF TOWS AT STATION 5  
MEAN OF 4 353 U OBLIQUE TOWS IN NOS PER METER CUBED (STD ERROR)

DATE	Cynoscion regalis	Leiostomus xanthurus	Ammodytes hexapterus	Anchoa mitchelli
26MAY82	0.00 ( . )	0.00 ( . )	0.00 (0.00)	0.00 ( . )
23MAY82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.03 ( 0.05)
29MAY82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.02 ( 0.01)
11JUN82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.05 ( 0.03)
22JUN82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.92 ( 0.28)
12JUL82	0.00 ( . )	0.00 ( . )	0.00 ( . )	1.68 ( 0.03)
30JUL82	0.00 ( . )	0.00 ( . )	0.00 ( . )	3.66 ( 2.04)
06AUG82	0.00 ( . )	0.00 ( . )	0.00 ( . )	1.49 ( 0.34)
18AUG82	0.00 ( . )	0.00 ( . )	0.00 ( . )	2.24 ( 0.47)
31AUG82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.83 ( 0.20)
17SEP82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.06 ( 0.03)
23SEP82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.02 ( 0.01)
09OCT82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( 0.00)
18JAN83	0.00 ( . )	0.00 ( . )	0.07 (0.01)	0.00 ( . )
21JUN83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.43 ( 0.11)
12JUL83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.21 ( 0.14)
24JUL83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.69 ( 0.20)
17AUG83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.95 ( 0.57)
25AUG83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.13 ( 0.07)
13SEP83	0.00 ( . )	0.00 ( . )	0.01 (0.01)	0.00 ( . )

Table A3. (Continued)

SCIAENIDS AND OTHER FISH  
SUMMARY OF TONS AT STATION 6  
PLAN UF 4 353 U OBLIQUE TONS IN NOS PER METER CUBED (STD ERROR)

DATE	Cynoscion regalis	Leiostomus xanthurus	Ammodytes hexapterus	Anchoa mitchelli
05MAY82	0.00 ( . )	0.00 ( . )	0.00 (0.00)	0.00 ( . )
29MAY82	0.00 ( . )	0.01 (0.01)	0.00 ( . )	0.00 ( . )
11JUN82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.32 ( 0.17 )
22JUN82	0.00 ( . )	0.00 ( . )	0.00 ( . )	1.03 ( 0.30 )
12JUL82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.67 ( 0.07 )
31JUL82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.81 ( 0.18 )
06AUG82	0.00 ( . )	0.00 ( . )	0.00 ( . )	2.88 ( 0.79 )
31AUG82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.62 ( 0.28 )
20SEP82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.01 ( 0.01 )
23SEP82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.07 ( 0.05 )
08MAR83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.04 ( 0.04 )
06APR83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.02 ( 0.02 )
29APR83	0.00 ( . )	0.02 (0.02)	0.00 ( . )	0.00 ( . )
26MAY83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.01 ( 0.01 )
30MAY83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.01 ( 0.01 )
21JUN83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.15 ( 0.06 )
12JUL83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.14 ( 0.08 )
29JUL83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.39 ( 0.20 )
12AUG83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.20 ( 0.08 )
15AUG83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.03 ( 0.02 )
13SEP83	0.00 ( . )	0.00 ( . )	0.36 (0.15)	0.00 ( . )
14OCT83	0.00 ( . )	0.00 ( . )	0.02 (0.02)	0.00 ( . )

Table A3. (Continued)

SCIAENIDS AND OTHER FISH  
SUMMARY OF TONS AT STATION 7  
MEAN OF 4 353 U OBLIQUE TONS IN NOS PER METER CUBED (STD ERROR)

DATE	Cynoscion regalis	Leleostomus xanthurus	Ammodytes hexapterus	Anchoa mitchelli
02MAR82	0.00 ( . )	0.00 ( . )	0.01 (0.01)	0.00 ( . )
29APR82	0.00 ( . )	0.00 ( . )	0.00 (0.00)	0.01 (0.01)
23MAY82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.08 (0.08)
29MAY82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.04 (0.02)
15JUN82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.08 (0.06)
22JUN82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.89 (0.28)
13JUL82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.36 (0.20)
31JUL82	0.01 (0.01)	0.00 ( . )	0.00 ( . )	0.13 (0.03)
06AUG82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.43 (0.15)
19AUG82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.55 (0.21)
31AUG82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.14 (0.05)
17SEP82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.06 (0.03)
23SEP82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.02 (0.01)
06OCT82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.01 (0.01)
07FEB83	0.00 ( . )	0.00 ( . )	0.01 (0.01)	0.00 ( . )
21JUN83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.04 (0.03)
12JUL83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.49 (0.15)
29JUL83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.41 (0.21)
12AUG83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.55 (0.24)
29AUG83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.23 (0.06)
13SEP83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.06 (0.04)
26SEP83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.11 (0.07)



Table A3. (Continued)

SCIAENIDS AND OTHER FISH  
SUMMARY OF TONS AT STATION 8  
MEAN OF 4 353 U NEUSTON TONS IN NOS PER METER CUBED (STD ERROR)

LATE	Cynoscion regalis	Leiostomus xanthurus	Ammodytes hexapterus	Anchoa mitchelli
17MAR82	0.00 ( . )	0.00 ( . )	0.63 (0.27)	0.00 ( . )
30MAR82	0.00 ( . )	0.00 ( . )	0.10 (0.04)	0.00 (0.00)
22APR82	0.00 ( . )	0.00 (0.00)	0.00 ( . )	0.00 ( . )
30JUN82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.01 (0.01)
12AUG82	0.00 (0.00)	0.00 ( . )	0.00 ( . )	0.01 (0.01)
30NOV82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.07 (0.07)
04FEB83	0.00 ( . )	0.00 ( . )	0.01 (0.01)	0.00 ( . )
30MAR83	0.00 ( . )	0.00 ( . )	0.01 (0.00)	0.00 ( . )
08JUL83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.01 (0.01)

SCIAENIDS AND OTHER FISH  
SUMMARY OF TONS AT STATION 8  
MEAN OF 4 353 U OBLIQUE TONS IN NOS PER METER CUBED (STD ERROR)

LATE	Cynoscion regalis	Leiostomus xanthurus	Ammodytes hexapterus	Anchoa mitchelli
17MAR82	0.00 ( . )	0.00 ( . )	1.18 (0.11)	0.00 ( . )
30MAR82	0.00 ( . )	0.00 ( . )	0.23 (0.02)	0.00 ( . )
22APR82	0.00 ( . )	0.00 ( . )	0.00 (0.00)	0.00 ( . )
19MAY82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.21 (0.21)
30JUN82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.03 (0.03)
22JUL82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.02 (0.01)
12AUG82	0.10 (0.08)	0.00 ( . )	0.00 ( . )	0.94 (0.23)
09SEP82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.07 (0.05)
16NOV82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.02 (0.02)
30NOV82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.05 (0.03)
26JAN83	0.00 ( . )	0.00 ( . )	0.13 (0.01)	0.19 (0.07)
04FEB83	0.00 ( . )	0.00 ( . )	0.02 (0.01)	0.00 ( . )
30MAR83	0.00 ( . )	0.00 ( . )	0.17 (0.06)	0.00 ( . )
08JUL83	0.00 ( . )	0.00 ( . )	0.00 ( . )	3.11 (1.21)
11AUG83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.03 (0.02)
23NOV83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.01 (0.01)

Table A3. (Continued)

SCIAENIDS AND OTHER FISH  
SUMMARY OF TONS AT STATION 9  
MEAN OF 4 353 U NEUTRON TONS IN NOS PER METER CUBED (STD ERROR)

DATE	Cynoscion regalis	Leiostomus xanthurus	Ammodytes hexapterus	Anchoa mitchellii
17MAR82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.02 ( 0.021)
30MAR82	0.00 ( . )	0.00 ( . )	0.00 (0.00)	0.00 ( 0.001)
30JUN82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( 0.001)
22JUL82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( 0.001)
12AUG82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.05 ( 0.051)
09SEP82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.03 ( 0.011)
16NOV82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( 0.001)
19MAY83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.82 ( 0.33)
16JUN83	0.00 ( . )	0.00 ( . )	0.00 (0.00)	0.00 ( . )
11AUG83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.02 ( 0.021)

SCIAENIDS AND OTHER FISH  
SUMMARY OF TONS AT STATION 9  
MEAN OF 4 353 U OBLIQUE TONS IN NOS PER METER CUBED (STD ERROR)

DATE	Cynoscion regalis	Leiostomus xanthurus	Ammodytes hexapterus	Anchoa mitchellii
30MAR82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( 0.001)
30JUN82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.13 ( 0.08)
22JUL82	0.00 ( . )	0.00 ( . )	0.00 ( . )	2.57 ( 1.45)
12AUG82	0.00 ( . )	0.00 ( . )	0.00 ( . )	1.67 ( 0.12)
24NOV82	0.00 ( . )	0.00 ( . )	0.01 (0.01)	0.00 ( . )
10NOV82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.01 ( 0.01)
27JUL82	0.00 ( . )	0.00 ( . )	0.01 (0.01)	0.00 ( . )
27JAN83	0.00 ( . )	0.00 ( . )	0.02 (0.02)	0.00 ( . )
27FEB83	0.00 ( . )	0.00 ( . )	0.19 (0.11)	0.02 ( 0.01)
16JUN83	0.00 ( . )	0.00 ( . )	0.01 (0.01)	0.00 ( . )
27JUL83	0.00 ( . )	0.00 ( . )	0.00 ( . )	10.41 (15.48)
27AUG83	0.00 ( . )	0.00 ( . )	0.00 ( . )	1.73 ( 0.73)

Table A3. (Continued)

SCIAENIDS AND OTHER FISH  
SUMMARY OF TOWS AT STATION 10  
MEAN OF 4 353 U NUSUM TOWS IN NOS PER METER CUBED (STD ERROR)

DATE	Cynoscion regalis	Leiostomus xanthurus	Ammodytes hexapterus	Anchoa mitchelli
30MAR82	0.00 ( . )	0.00 ( . )	0.01 (0.00)	0.00 ( . )
30JUN82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.06 ( 0.06)
22JUL82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.50 ( 0.15)
12AUG82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.03 ( 0.01)
09SEPR82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.08 ( 0.38)
20OCT82	0.00 ( . )	0.00 ( . )	0.00 (0.00)	0.00 ( . )
19MAY83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.01 ( 0.00)
08JUL83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( 0.00)
11AUG83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.02 ( 0.02)

SCIAENIDS AND OTHER FISH  
SUMMARY OF TOWS AT STATION 10  
MEAN OF 4 353 U OBLIQUE TOWS IN NOS PER METER CUBED (STD ERROR)

DATE	Cynoscion regalis	Leiostomus xanthurus	Ammodytes hexapterus	Anchoa mitchelli
30MAR82	0.00 ( . )	0.00 ( . )	0.02 (0.01)	0.00 ( . )
30JUN82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.28 ( 0.05)
26JAN83	0.00 ( . )	0.00 ( . )	0.01 (0.01)	0.00 ( . )
09FEB83	0.00 ( . )	0.00 ( . )	0.03 (0.02)	0.01 ( 0.01)
16JUN83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.07 ( 0.06)
11AUG83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.97 ( 0.97)
20SEP83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.03 ( 0.03)
19NOV83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.01 ( 0.01)

Table A3. (Continued)

SCIAENIDS AND OTHER FISH  
SUMMARY OF TONS AT STATION DS  
MEAN OF 4 353 U NEUSTON TONS IN NOS PER METER CUBED (STD ERROR)

DATE	Cynoscion regalis	Leiostomus xanthurus	Ammodytes hexapterus	Anchoa mitchelli
17MAR82	0.00 ( . )	0.00 ( . )	0.03 (0.01)	0.00 ( . )
30MAR82	0.00 ( . )	0.00 ( . )	0.00 (0.00)	0.00 ( . )
29JUN82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.01 ( 0.00)
11AUG82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.00 ( 0.00)
17NOV82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.02 ( 0.02)
08FEB83	0.00 ( . )	0.00 ( . )	0.15 (0.07)	0.00 ( . )
23APR83	0.00 ( . )	0.00 ( . )	0.00 (0.00)	0.00 ( . )
18MAY83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.01 ( 0.00)
07JUL83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.02 ( 0.01)

SCIAENIDS AND OTHER FISH  
SUMMARY OF TONS AT STATION DS  
MEAN OF 4 353 U OBLIQUE TONS IN NOS PER METER CUBED (STD ERROR)

DATE	Cynoscion regalis	Leiostomus xanthurus	Ammodytes hexapterus	Anchoa mitchelli
14JAN82	0.00 ( . )	0.01 (0.01)	0.00 ( . )	0.05 ( 0.03)
17MAR82	0.00 ( . )	0.00 ( . )	1.35 (0.25)	0.00 ( . )
30MAR82	0.00 ( . )	0.00 ( . )	0.92 (0.25)	0.00 ( . )
29JUN82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.08 ( 0.04)
11AUG82	0.00 ( . )	0.00 ( . )	0.00 ( . )	1.03 ( 0.93)
17NOV82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.49 ( 0.76)
30NOV82	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.02 ( 0.02)
08FEB83	0.00 ( . )	0.00 ( . )	0.94 (0.13)	0.00 ( . )
29MAR83	0.00 ( . )	0.00 ( . )	0.04 (0.03)	0.00 ( . )
23APR83	0.00 ( . )	0.00 ( . )	0.08 (0.08)	0.00 ( . )
18MAY83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.05 ( 0.05)
14JUN83	0.00 ( . )	0.00 ( . )	0.06 (0.06)	0.20 ( 0.14)
07JUL83	0.00 ( . )	0.00 ( . )	0.00 ( . )	0.02 ( 0.01)

Table A3. (Continued)

MOLLUSCS  
SUMMARY OF TOWS AT STATION 1  
MEAN OF 4 153 MICRON OBLIQUE TOWS IN NOS PER METER CUBED (STD ERROR)

DATE	Bivalve B	All Bivalves	Mytilidae	Oysters
16FEB82	442.21( 275.02)	442.21( 275.02)	0.00( . )	0.00( . )
09MAR82	7.01( 3.42)	7.03( 3.43)	0.02( 0.02)	0.00( . )
03APR82	106.60( 61.45)	106.61( 61.45)	0.00( . )	0.01( 0.01)
30APR82	1034.20( 370.40)	1034.20( 370.40)	0.00( . )	0.00( . )
24MAY82	989.77( 387.30)	989.90( 387.28)	0.00( . )	0.00( . )
30MAY82	52639.88(52419.00)	52639.88(52419.00)	0.00( . )	0.00( . )
08JUN82	338.24( 138.17)	338.24( 138.17)	0.00( . )	0.00( . )
21JUN82	1729.09( 406.77)	1729.09( 406.77)	0.00( . )	0.00( . )
12JUL82	164.43( 27.63)	165.87( 28.15)	0.00( . )	1.44( 0.77)
30JUL82	947.23( 314.50)	948.33( 313.88)	0.00( . )	1.10( 0.70)
04AUG82	56.82( 28.17)	57.52( 28.60)	0.12( 0.12)	0.58( 0.51)
18AUG82	47.76( 4.96)	49.45( 5.12)	0.00( . )	1.69( 0.36)
30AUG82	128.68( 36.79)	128.76( 36.84)	0.00( . )	0.08( 0.08)
16SEP82	219.97( 78.29)	220.55( 78.32)	0.00( . )	0.58( 0.38)
24SEP82	74.91( 9.07)	75.96( 9.37)	0.00( . )	1.04( 0.36)
07OCT82	56.45( 6.29)	59.23( 5.48)	0.00( . )	2.78( 0.97)
15OCT82	166.78( 38.48)	166.86( 38.47)	0.00( . )	0.08( 0.08)
29OCT82	150.91( 15.14)	151.08( 15.06)	0.00( . )	0.00( . )
11NOV82	276.63( 79.13)	276.65( 79.11)	0.00( . )	0.00( . )
24NOV82	275.99( 82.08)	275.99( 82.08)	0.00( . )	0.00( . )
10DEC82	2923.71( 2493.08)	2923.71( 2493.08)	0.00( . )	0.00( . )
21DEC82	799.07( 237.43)	799.07( 237.43)	0.00( . )	0.00( . )
24JAN83	160.85( 42.89)	160.85( 42.89)	0.00( . )	0.00( . )
31JAN83	310.35( 119.49)	310.35( 119.49)	0.00( . )	0.00( . )
09FEB83	217.75( 79.60)	217.75( 79.60)	0.00( . )	0.00( . )
21FEB83	1412.91( 288.70)	1412.91( 288.70)	0.00( . )	0.00( . )
10MAR83	162.52( 44.35)	162.52( 44.35)	0.00( . )	0.00( . )
28MAR83	54.15( 12.52)	54.15( 12.52)	0.00( . )	0.00( . )
11APR83	207.97( 31.91)	207.97( 31.91)	0.00( . )	0.00( . )
27APR83	16.12( 2.59)	16.16( 2.55)	0.00( . )	0.00( . )
11MAY83	330.19( 60.75)	330.36( 60.87)	0.17( 0.17)	0.00( . )
31MAY83	726.80( 110.46)	730.00( 110.53)	0.00( . )	0.00( . )
24JUN83	161.07( 66.78)	161.17( 66.86)	0.00( . )	0.10( 0.10)
13JUL83	647.55( 54.24)	647.55( 54.24)	0.00( . )	0.00( . )
28JUL83	256.81( 109.88)	256.83( 109.88)	0.00( . )	0.00( . )
09AUG83	73.43( 42.40)	73.43( 42.40)	0.00( . )	0.00( . )
26AUG83	163.42( 81.19)	163.42( 81.19)	0.00( . )	0.00( . )
12SEP83	175.68( 50.31)	176.37( 50.30)	0.00( . )	0.68( 0.54)
03OCT83	289.25( 93.86)	294.84( 92.92)	0.00( . )	5.60( 2.54)
13OCT83	183.13( 121.16)	183.80( 121.13)	0.00( . )	0.67( 0.14)
11DEC83	62.30( 24.08)	64.41( 24.44)	0.00( . )	0.00( . )

Table A3. (Continued)

MOLLUSCS  
SUMMARY OF TONS AT STATION 2  
MEAN OF 4 153 MICRON OBLIQUE TONS IN NOS PER METER CUBED (STD ERROR)

DATE	Bivalve B	All Bivalves	Mytilidae	Dysters
16FEB82	193.53( 61.44)	193.53( 61.44)	0.00( . )	0.00( . )
09MAR82	4.52( 2.21)	4.52( 2.21)	0.00( . )	0.00( . )
22APR82	46904.54(27308.31)	46904.54(27308.31)	0.00( . )	0.00( . )
29APR82	685.77( 399.79)	685.77( 399.79)	0.00( . )	0.00( . )
24MAY82	185.34( 74.11)	185.34( 74.11)	0.00( . )	0.00( . )
30MAY82	1856.09( 1510.27)	1856.09( 1510.27)	0.00( . )	0.00( . )
08JUN82	266.09( 73.46)	266.09( 73.46)	0.00( . )	0.00( . )
21JUN82	157.55( 41.53)	157.55( 41.53)	0.00( . )	0.00( . )
12JUL82	1401.56( 1266.71)	1402.51( 1266.39)	0.00( . )	0.95( 0.47)
30JUL82	30.57( 14.82)	33.61( 15.84)	0.00( . )	3.04( 1.86)
04AUG82	118.99( 94.96)	122.21( 97.53)	0.00( . )	3.22( 2.58)
18AUG82	27.41( 15.53)	29.43( 16.40)	0.00( . )	2.02( 0.97)
30AUG82	25.30( 10.25)	28.75( 11.01)	0.00( . )	3.45( 2.59)
16SEP82	156.15( 73.31)	160.31( 74.26)	0.00( . )	4.16( 3.36)
24SEP82	53.80( 3.57)	59.36( 4.51)	0.00( . )	5.57( 1.95)
07OCT82	93.86( 32.16)	94.19( 32.28)	0.00( . )	0.33( 0.19)
15OCT82	43.30( 6.29)	43.86( 6.19)	0.00( . )	0.56( 0.34)
29OCT82	10.62( 4.41)	10.62( 4.41)	0.00( . )	0.00( . )
11NOV82	109.79( 34.86)	109.79( 34.86)	0.00( . )	0.00( . )
24NOV82	105.11( 57.40)	105.11( 57.40)	0.00( . )	0.00( . )
10DEC82	50.41( 21.42)	50.41( 21.42)	0.00( . )	0.00( . )
22DEC82	55.30( 11.02)	55.30( 11.02)	0.00( . )	0.00( . )
31JAN83	1784.21( 251.93)	1784.21( 251.93)	0.00( . )	0.00( . )
09FEB83	151.33( 56.49)	151.33( 56.49)	0.00( . )	0.00( . )
21FEB83	31.15( 4.70)	31.15( 4.70)	0.00( . )	0.00( . )
10MAR83	391.38( 139.19)	391.38( 139.19)	0.00( . )	0.00( . )
28MAR83	13.44( 6.23)	13.44( 6.23)	0.00( . )	0.00( . )
11APR83	381.12( 128.50)	381.12( 128.50)	0.00( . )	0.00( . )
27APR83	7.81( 3.86)	7.81( 3.86)	0.00( . )	0.00( . )
11MAY83	1974.74( 574.70)	1974.74( 574.70)	0.00( . )	0.00( . )
31MAY83	379.97( 80.40)	379.97( 80.40)	0.00( . )	0.00( . )
24JUN83	985.53( 451.11)	985.53( 451.08)	0.00( . )	0.11( 0.11)
13JUL83	742.65( 262.14)	742.65( 262.14)	0.00( . )	0.00( . )
28JUL83	572.43( 354.23)	574.55( 355.72)	0.00( . )	2.12( 1.55)
09AUG83	85.62( 14.47)	85.62( 14.47)	0.00( . )	0.00( . )
26AUG83	65.84( 23.75)	65.97( 23.74)	0.00( . )	0.12( 0.07)
12SEP83	1044.83( 171.68)	1046.04( 171.68)	0.00( . )	1.22( 0.08)
03OCT83	179.87( 48.89)	180.99( 48.87)	0.00( . )	1.12( 0.25)
13OCT83	35.38( 18.01)	35.69( 17.90)	0.00( . )	0.31( 0.16)
26OCT83	14.05( 3.70)	14.05( 3.70)	0.00( . )	0.00( . )
18NOV83	0.16( 0.06)	0.16( 0.06)	0.00( . )	0.00( . )
02DEC83	3.10( 0.69)	3.16( 0.64)	0.00( . )	0.00( . )

Table A3. (Continued)

MOLLUSCS  
SUMMARY OF TONS AT STATION 3  
MEAN OF 4 153 MICRON OBLIQUE TONS IN NOS PER METER CUBED (STD ERROR)

DATE	Bivalve B	All Bivalves	Mytilidae	Oysters
16FEB82	281.73( 125.99)	281.73( 125.99)	0.00( . )	0.00( . )
09MAR82	0.91( 0.11)	0.93( 0.11)	0.00( 0.00)	0.00( . )
22APR82	90617.47(26261.10)	90617.47(26261.10)	0.00( . )	0.00( . )
29APR82	107478.03(95958.41)	107478.03(95958.41)	0.00( . )	0.00( . )
24MAY82	311.64( 86.00)	311.67( 85.98)	0.00( . )	0.00( . )
30MAY82	1550.78( 766.17)	1550.78( 766.17)	0.00( . )	0.00( . )
08JUN82	228.19( 107.90)	228.23( 107.89)	0.00( . )	0.03( 0.03)
21JUN82	24.67( 12.98)	24.67( 12.98)	0.00( . )	0.00( . )
12JUL82	122.66( 49.30)	123.27( 49.18)	0.00( . )	0.16( 0.16)
30JUL82	14.30( 4.70)	14.97( 5.21)	0.00( . )	0.66( 0.62)
04AUG82	17.05( 3.16)	17.05( 3.16)	0.00( . )	0.00( . )
18AUG82	22.98( 7.62)	25.37( 8.08)	0.00( . )	2.39( 1.29)
30AUG82	29.68( 5.10)	36.63( 5.78)	4.03( 4.03)	2.74( 0.84)
16SEP82	169.21( 89.73)	170.88( 89.62)	0.00( . )	1.67( 0.65)
24SEP82	17.29( 3.32)	18.26( 3.28)	0.00( . )	1.07( 0.09)
07OCT82	98.69( 9.06)	99.99( 8.91)	0.00( . )	1.31( 0.18)
15OCT82	26.76( 7.02)	26.76( 7.02)	0.00( . )	0.00( . )
29OCT82	22.53( 3.74)	22.53( 3.74)	0.00( . )	0.00( . )
11NOV82	177.71( 70.10)	178.29( 70.00)	0.00( . )	0.00( . )
24NOV82	176.60( 62.28)	177.02( 62.14)	0.00( . )	0.00( . )
10DEC82	229.13( 148.04)	229.28( 148.19)	0.00( . )	0.00( . )
22DEC82	35.73( 1.81)	35.73( 1.81)	0.00( . )	0.00( . )
31JAN83	389.42( 67.93)	389.56( 67.86)	0.00( . )	0.00( . )
09FEB83	203.48( 150.99)	203.48( 150.99)	0.00( . )	0.00( . )
21FEB83	732.32( 473.53)	732.32( 473.53)	0.00( . )	0.00( . )
16MAR83	31.96( 11.99)	31.96( 11.99)	0.00( . )	0.00( . )
28MAR83	39.85( 7.65)	39.85( 7.65)	0.00( . )	0.00( . )
11APR83	449.19( 198.90)	449.22( 198.90)	0.00( . )	0.00( . )
27APR83	8.41( 5.22)	10.83( 5.86)	0.00( . )	0.00( . )
11MAY83	1772.92( 338.45)	1772.92( 338.45)	0.00( . )	0.00( . )
31MAY83	1047.53( 399.19)	1047.53( 399.19)	0.00( . )	0.00( . )
24JUN83	184.10( 34.31)	184.86( 34.57)	0.00( . )	0.76( 0.76)
13JUL83	4819.65( 4505.67)	8819.65( 4505.67)	0.00( . )	0.00( . )
22JUL83	131.85( 37.94)	132.40( 38.49)	0.00( . )	0.55( 0.55)
09AUG83	46.53( 18.82)	46.87( 18.80)	0.00( . )	0.33( 0.22)
26AUG83	160.54( 50.60)	160.75( 50.55)	0.00( . )	0.21( 0.09)
12SEP83	401.34( 127.85)	461.66( 128.00)	0.00( . )	0.32( 0.19)
03OCT83	24.72( 8.34)	24.94( 8.39)	0.00( . )	0.23( 0.23)
13OCT83	116.98( 49.27)	117.37( 49.22)	0.00( . )	0.39( 0.23)
28OCT83	6.02( 1.37)	6.02( 1.37)	0.00( . )	0.00( . )
18NOV83	6.58( 2.35)	6.58( 2.35)	0.00( . )	0.00( . )
02DEC83	9.60( 4.03)	9.60( 4.03)	0.00( . )	0.00( . )

Table A3. (Continued)

MOLLUSCS  
SUMMARY OF TOWS AT STATION 4  
MEAN OF 4 153 MICKON OBLIQUE TOWS IN NOS PER METER CUBED (STD ERROR)

DATE	Bivalve g	All Bivalves	Mytilidae	Oysters
04MAR82	0.53( 0.67)	0.53( 0.67)	0.00( . )	-0.00( 0.00)
22APR82	8169.13( 5284.92)	8169.13( 5284.92)	0.00( . )	0.00( . )
29APR82	10941.57( 9681.72)	10941.57( 9681.72)	0.00( . )	0.00( . )
24MAY82	450.17( 161.79)	450.17( 161.79)	0.00( . )	0.00( . )
30MAY82	85232.82(79260.74)	85232.82(79260.74)	0.00( . )	0.00( . )
08JUN82	19470.56(19416.46)	19817.98(19763.09)	0.00( . )	347.23(346.70)
21JUN82	37.50( 13.30)	37.77( 13.17)	0.00( . )	0.27( 0.27)
12JUL82	121.92( 48.71)	125.15( 50.19)	0.00( . )	3.23( 1.50)
30JUL82	136.93( 32.49)	143.21( 31.37)	0.00( . )	6.28( 1.46)
04AUG82	37.66( 2.94)	40.53( 3.95)	0.00( . )	2.88( 1.23)
18AUG82	23.28( 2.91)	24.07( 2.88)	0.17( 0.17)	0.63( 0.21)
30AUG82	148.38( 31.34)	154.62( 28.71)	0.00( . )	6.24( 4.46)
16SEP82	59.42( 35.90)	62.61( 37.34)	0.00( . )	3.20( 1.63)
24SEP82	19.07( 0.42)	21.74( 0.47)	0.00( . )	2.67( 0.13)
07OCT82	224.52( 73.96)	225.16( 73.97)	0.00( . )	0.64( 0.22)
15OCT82	39.49( 17.53)	39.93( 17.33)	0.09( 0.09)	0.35( 0.35)
29OCT82	3.49( 0.27)	3.60( 0.4)	0.00( . )	0.11( 0.11)
11NOV82	44.17( 7.41)	44.17( 7.41)	0.00( . )	0.00( . )
10DEC82	38.31( 20.59)	38.42( 20.54)	0.00( . )	0.00( . )
31JAN83	108.79( 27.34)	109.34( 27.02)	0.00( . )	0.00( . )
09FEB83	116.12( 38.79)	116.12( 38.79)	0.00( . )	0.00( . )
16MAR83	2.60( 1.10)	2.60( 1.10)	0.00( . )	0.00( . )
11APR83	2968.54( 423.40)	2968.54( 423.40)	0.00( . )	0.00( . )
27APR83	0.49( 0.17)	0.49( 0.17)	0.00( . )	0.00( . )
11MAY83	363.11( 210.63)	363.11( 210.63)	0.00( . )	0.00( . )
31MAY83	62.24( 47.13)	62.24( 47.13)	0.00( . )	0.00( . )
24JUN83	69.21( 4.58)	69.21( 4.58)	0.00( . )	0.00( . )
13JUL83	11.41( 2.68)	11.66( 2.81)	0.00( . )	0.25( 0.16)
29JUL83	193.42( 78.14)	196.80( 77.60)	0.00( . )	3.38( 1.27)
09AUG83	4.17( 1.36)	4.17( 1.36)	0.00( . )	0.00( . )
26AUG83	73.81( 14.40)	74.65( 14.46)	0.00( . )	0.84( 0.26)
12SEP83	68.85( 16.49)	77.67( 19.85)	0.00( . )	8.83( 3.59)
03OCT83	169.03( 108.02)	169.69( 108.24)	0.00( . )	0.66( 0.27)
13OCT83	52.09( 4.28)	52.69( 4.17)	0.00( . )	0.61( 0.26)
28OCT83	2.24( 1.44)	2.24( 1.44)	0.00( . )	0.00( . )
18NOV83	14.56( 4.56)	14.56( 4.56)	0.00( . )	0.00( . )
16DEC83	2.43( 0.85)	2.53( 0.87)	0.00( . )	0.00( . )



Table A3. (Continued)

MOLLUSCS  
SUMMARY OF TOWS AT STATION 5  
MEAN OF 4 153 MICRON OBLIQUE TOWS IN NOS PER METER CUBED (STD ERROR)

DATE	Bivalve B	All Bivalves	Mytilidae	Oysters
04MAR82	0.25( 0.04)	0.29( 0.03)	0.00( . )	0.00( 0.02)
26MAR82	0.38( 0.16)	0.42( 0.15)	0.00( . )	0.04( . )
29APR82	137.95( 49.84)	187.56( 69.41)	0.00( . )	0.00( . )
23MAY82	391.25( 129.37)	391.25( 129.37)	0.00( . )	0.00( . )
29MAY82	129.24( 38.62)	129.24( 38.62)	0.00( . )	0.00( . )
11JUN82	20.02( 3.69)	20.02( 3.69)	0.00( . )	0.00( . )
22JUN82	26.75( 6.89)	26.75( 6.89)	0.00( . )	0.00( . )
12JUL82	89.30( 32.92)	114.38( 44.77)	0.00( . )	0.00( . )
30JUL82	110.65( 59.89)	130.10( 62.58)	0.00( . )	24.87( 16.53)
06AUG82	26.54( 11.14)	28.96( 12.06)	0.00( . )	19.45( 10.94)
18AUG82	54.45( 23.47)	59.96( 22.92)	0.00( . )	2.42( 1.10)
31AUG82	69.01( 18.13)	71.63( 17.63)	0.00( . )	5.51( 0.70)
17SEP82	90.97( 12.76)	95.03( 13.03)	0.00( . )	2.62( 1.59)
23SEP82	84.58( 15.12)	98.52( 21.54)	0.00( . )	4.06( 0.86)
08OCT82	69.08( 13.03)	74.49( 15.37)	0.00( . )	13.94( 6.81)
14OCT82	57.85( 25.10)	70.46( 17.86)	0.00( . )	5.41( 3.45)
28OCT82	9.09( 1.73)	9.16( 1.69)	0.00( . )	12.61( 12.49)
12NOV82	8.57( 3.13)	8.63( 3.17)	0.00( . )	0.00( . )
09DEC82	4.00( 1.00)	4.00( 1.00)	0.00( . )	0.00( . )
18JAN83	5.55( 1.46)	5.55( 1.46)	0.00( . )	0.00( . )
07FEB83	60.60( 7.57)	60.60( 7.57)	0.00( . )	0.00( . )
10MAR83	3.46( 1.21)	3.46( 1.21)	0.00( . )	0.00( . )
11APR83	792.73( 175.45)	792.73( 175.45)	0.00( . )	0.00( . )
29APR83	2.51( 2.18)	2.51( 2.18)	0.00( . )	0.00( . )
26MAY83	0.80( 0.28)	0.80( 0.28)	0.00( . )	0.00( . )
30MAY83	0.78( 0.40)	0.78( 0.40)	0.00( . )	0.00( . )
21JUN83	104.19( 38.53)	104.19( 38.53)	0.00( . )	0.00( . )
12JUL83	525.93( 451.59)	731.91( 616.28)	0.00( . )	0.00( . )
29JUL83	62.05( 16.25)	83.56( 19.30)	0.00( . )	205.98( 164.72)
12AUG83	11.46( 5.40)	23.15( 6.77)	0.00( . )	21.51( 5.61)
25AUG83	82.63( 20.96)	84.19( 20.69)	0.00( . )	11.69( 2.41)
13SEP83	19.09( 13.58)	21.25( 14.10)	0.00( . )	1.57( 0.89)
26SEP83	3.81( 0.52)	4.20( 0.45)	0.00( . )	2.16( 0.75)
14OCT83	50.65( 31.53)	50.65( 31.53)	0.00( . )	0.39( 0.26)
28OCT83	1.46( 0.73)	1.46( 0.73)	0.00( . )	0.00( . )
23NOV83	0.59( 0.39)	0.59( 0.39)	0.00( . )	0.00( . )
16DEC83	0.56( 0.19)	0.56( 0.19)	0.00( . )	0.00( . )

Table A3. (Continued)

MOLLUSCS  
SUMMARY OF TOWS AT STATION 6  
MEAN OF 4 153 MICRON OBLIQUE TOWS IN NOS PER METER CUBED (STD ERROR)

DATE	Bivalve 8	All Bivalves	Mytilidae	Oysters
05MAR82	0.061	0.061	0.001	0.001
26MAR82	0.051	0.301	0.001	0.001
29APR82	27.611	27.921	0.001	0.001
29MAY82	207.551	207.551	0.001	0.001
11JUN82	3.771	3.771	0.001	0.001
22JUN82	10.201	10.261	0.001	0.001
12JUL82	30.741	48.521	0.001	0.071
31JUL82	85.221	150.271	0.001	17.781
06AUG82	10.071	28.731	0.001	65.051
19AUG82	94.281	129.031	0.001	18.661
31AUG82	868.091	899.541	0.001	34.751
20SEP82	13.781	22.521	0.001	31.451
23SEP82	5.971	7.911	0.001	8.741
06OCT82	6.561	7.381	0.001	1.931
14OCT82	49.721	50.441	0.001	0.821
28OCT82	1.581	1.601	0.001	0.721
12NOV82	5.221	5.231	0.001	0.021
09DEC82	2.091	2.141	0.001	0.011
18JAN83	8.821	8.821	0.001	0.051
07FEB83	0.001	0.001	0.001	0.001
08MAR83	23.991	24.051	0.001	0.001
06APR83	141.541	141.541	0.001	0.061
29APR83	0.001	0.001	0.001	0.001
26MAY83	2.471	2.471	0.001	0.001
30MAY83	1.081	1.081	0.001	0.001
21JUN83	51.901	51.901	0.001	0.001
12JUL83	19.921	113.491	0.001	0.001
29JUL83	3.161	56.421	0.001	0.001
12AUG83	10.081	21.311	0.001	93.571
25AUG83	161.441	162.911	0.001	53.271
13SEP83	59.051	78.011	0.001	11.221
26SEP83	13.281	15.741	0.001	1.471
14OCT83	4.221	4.221	0.001	18.931
26OCT83	2.371	2.371	0.001	2.461
23NOV83	0.331	0.331	0.001	0.001
16DEC83	0.201	0.201	0.001	0.001

Table A3. (Continued)

MOLLUSCS  
SUMMARY OF TOWS AT STATION 7  
MEAN OF 4 153 MICRON OBLIQUE TOWS IN NOS PER METER CUBED (STD ERROR)

DATE	Bivalve B	All Bivalves	Mytilidae	Oysters
05MAR82	0.12(	0.12(	0.00(	0.00(
29APR82	7.52(	7.60(	0.00(	0.02(
23MAY82	48.92(	60.74(	0.00(	0.00(
29MAY82	3.20(	3.55(	0.00(	0.00(
15JUN82	2.10(	2.10(	0.00(	0.00(
22JUN82	1.21(	1.21(	0.00(	0.00(
13JUL82	23.86(	43.03(	0.00(	19.17(
31JUL82	22.98(	46.64(	0.00(	23.66(
06AUG82	34.24(	55.33(	0.00(	21.10(
19AUG82	32.12(	42.25(	0.00(	10.13(
31AUG82	23.07(	36.22(	0.00(	13.15(
17SEP82	7.90(	17.45(	0.00(	9.55(
23SEP82	5.55(	13.54(	0.00(	7.99(
06OCT82	7.18(	7.94(	0.00(	0.75(
14OCT82	6.17(	6.27(	0.03(	0.06(
28OCT82	2.17(	2.17(	0.00(	0.00(
12NOV82	2.99(	2.99(	0.00(	0.00(
09DEC82	1.31(	1.31(	0.00(	0.00(
18JAN83	0.70(	0.70(	0.00(	0.00(
07FEB83	3.52(	3.52(	0.00(	0.00(
08MAR83	27.94(	28.01(	0.00(	0.00(
06APR83	2.48(	2.48(	0.00(	0.00(
26MAY83	0.57(	0.57(	0.00(	0.00(
30MAY83	0.94(	0.94(	0.00(	0.00(
21JUN83	26.61(	26.61(	0.00(	0.00(
12JUL83	23.43(	85.68(	0.00(	62.25(
29JUL83	184.66(	216.47(	0.00(	31.81(
12AUG83	12.87(	19.05(	0.00(	6.18(
25AUG83	15.41(	17.08(	0.00(	1.67(
13SEP83	110.00(	148.85(	0.00(	38.85(
26SEP83	3.49(	4.19(	0.00(	0.70(
14OCT83	6.34(	6.34(	0.00(	0.00(
26OCT83	2.40(	2.40(	0.00(	0.00(
23NOV83	0.43(	0.50(	0.00(	0.00(
16DEC83	0.39(	0.39(	0.00(	0.00(

Table A3. (Continued)

MOLLUSCS  
SUMMARY OF TOWS AT STATION 8  
MEAN OF 4 153 MICRON OBLIQUE TOWS IN NOS PER METER CUBED (STD ERROR)

DATE	Bivalve B	All Bivalves	Mytilidae	Oysters
20OCT82	0.00( . )	0.00( . )	0.00( . )	0.00( . )
18NOV82	614.32( 179.51)	614.32( 179.51)	0.00( . )	0.00( . )
30NOV82	229.65( 85.84)	229.65( 85.84)	0.00( . )	0.00( . )
26JAN83	55.17( 12.06)	55.17( 12.06)	0.00( . )	0.00( . )
09FEB83	43.14( 24.92)	43.14( 24.92)	0.00( . )	0.00( . )
30MAR83	138.28( 26.65)	138.28( 26.65)	0.00( . )	0.00( . )
21APR83	60.67( 23.49)	60.67( 23.49)	0.00( . )	0.00( . )
19MAY83	736.77( 180.78)	736.77( 180.78)	0.00( . )	0.00( . )
16JUN83	574.04( 54.36)	574.04( 54.36)	0.00( . )	0.00( . )
08JUL83	3558.09( 2069.69)	3558.09( 2069.69)	0.00( . )	0.00( . )
11AUG83	121.43( 14.40)	121.43( 14.40)	0.00( . )	0.00( . )
20SEP83	73.66( 13.15)	73.66( 13.15)	0.00( . )	1.89( 0.40)
02NOV83	182.40( 60.53)	182.40( 60.53)	0.00( . )	0.00( . )
23NOV83	16.17( 6.24)	20.41( 7.28)	0.00( . )	0.00( . )
10DEC83	194.76( 70.32)	197.02( 70.82)	0.00( . )	0.00( . )

Table A3. (Continued)

MOLLUSCS  
SUMMARY OF TOWS AT STATION 9  
MEAN OF 4 153 MICRON OBLIQUE TOWS IN NOS PER METER CUBED (STD ERROR)

DATE	Bivalve B	All Bivalves	Mytilidae	Oysters
30JUN82	268.48(	248.46(	0.00(	0.00(
22JUL82	0.00(	0.00(	0.00(	0.00(
12AUG82	0.00(	0.00(	0.00(	0.00(
09SEP82	0.00(	0.00(	0.00(	0.00(
20OCT82	0.04(	0.04(	0.00(	0.00(
18NOV82	429.93(	105.85(	0.00(	0.00(
24NOV82	71.36(	4.92(	0.00(	0.00(
30NOV82	143.66(	32.27(	0.00(	0.00(
22DEC82	3.87(	1.40(	21.73(	0.00(
26JAN83	32.53(	2.74(	0.00(	0.00(
21FEB83	198.21(	44.39(	0.00(	0.00(
30MAR83	102.71(	30.13(	0.00(	0.00(
21APR83	28.09(	15.97(	0.00(	0.00(
27APR83	27.97(	22.66(	0.00(	0.00(
19MAY83	4513.06(	391.14(	0.00(	0.00(
16JUN83	65.38(	11.67(	0.00(	0.00(
08JUL83	1084.64(	477.75(	0.00(	0.00(
28JUL83	1440.27(	231.75(	0.00(	1.38(
11AUG83	153.67(	8.42(	0.00(	0.00(
26AUG83	1153.76(	314.42(	0.00(	3.09(
20SEP83	44.94(	10.62(	0.00(	5.06(
03OCT83	81.10(	9.72(	0.00(	0.07(
02NOV83	45.80(	14.71(	0.00(	0.00(
18NOV83	55.93(	20.93(	0.00(	0.00(
23NOV83	14.68(	4.65(	0.00(	0.00(
10DEC83	5.76(	2.94(	0.00(	0.00(

Table A3. (Continued)

MOLLUSCS  
SUMMARY OF TOWS AT STATION 10  
MEAN OF 4 153 MICRON OBLIQUE TOWS IN NOS PER METER CUBED (STD ERROR)

DATE	Bivalve B	All Bivalves	Mytilidae	Oysters
20OCT82	0.00(	0.00(	0.00(	0.00(
18NOV82	478.09(	478.09(	0.00(	0.00(
30NOV82	163.58(	163.58(	0.00(	0.00(
26JAN83	12.66(	12.66(	0.00(	0.00(
30JAN83	36.64(	36.64(	0.00(	0.00(
21APR83	216.76(	216.76(	0.00(	0.00(
19MAY83	10019.61(	10019.61(	0.00(	0.00(
16JUN83	82.93(	82.93(	0.00(	0.00(
08JUL83	308.53(	308.53(	0.00(	0.00(
11AUG83	118.17(	118.17(	0.00(	0.00(
20SEP83	55.20(	57.94(	0.00(	2.74(
02NOV83	25.66(	25.66(	0.00(	0.00(
11DEC83	97.02(	101.34(	0.00(	0.00(

Table A3. (Continued)

OTHER INVERTEBRATES  
SUMMARY OF TOWS AT STATION 1  
MEAN OF 4 153 MICRON OBLIQUE TOWS IN NOS PER METER CUBED (STD ERROR)

LATE	Polychaeta Haplontian	Polychaeta Siphiidae	Polychaeta Trochophores Nectochaetes	Larvacea	Phoronida
16FEB82	0.001	0.101	0.121	0.001	0.001
19MAR82	0.001	0.081	0.071	0.001	0.001
13APR82	0.001	0.011	0.011	0.001	0.001
10APR82	0.001	4.991	0.001	0.001	0.001
14MAY82	50.031	351.501	0.001	0.001	0.001
10MAY82	0.901	122.551	0.001	186.271	0.181
26JUN82	7.821	13.351	8.941	73.181	0.001
21JUN82	0.001	10.871	0.001	0.001	0.001
12JUL82	0.001	2.001	0.311	44.731	0.001
30JUL82	0.001	0.161	0.001	596.521	0.001
04AUG82	0.001	1.331	0.001	204.421	0.001
18AUG82	0.001	0.781	0.001	34.011	0.001
30AUG82	0.001	0.011	0.001	14.311	0.001
16SEP82	0.001	0.191	0.001	85.131	0.001
24SEP82	0.001	0.271	0.141	8.291	0.001
07OCT82	0.081	11.841	0.231	117.391	0.001
15OCT82	0.831	2.281	0.571	3.961	0.001
29OCT82	0.891	11.081	0.681	0.221	0.251
11NOV82	0.351	16.001	1.141	133.811	0.001
24NOV82	0.001	6.031	0.201	20.171	0.001
10DEC82	0.001	132.771	1.961	557.051	0.001
21DEC82	0.001	13.981	0.001	4.691	0.001
24JAN83	0.001	1.261	0.001	0.001	0.001
31JAN83	0.011	0.871	0.121	0.011	0.061
09FEB83	0.001	1.661	0.211	0.001	0.081
21FEB83	0.001	5.201	20.491	0.001	0.301
1CMAR83	0.001	0.001	68.431	0.001	0.261
28MAR83	0.001	9.481	1.821	0.001	0.121
11APR83	0.001	2.861	0.051	0.001	0.001
27APR83	0.001	265.391	7.071	0.001	0.001
11MAY83	0.001	37.131	0.341	0.001	0.211
31MAY83	0.001	3.641	28.151	9.981	0.851
24JUN83	0.141	6.711	0.001	40.161	0.001
13JUL83	0.001	12.021	0.301	426.391	0.301
22JUL83	0.001	4.651	0.111	746.751	0.051
09AUG83	0.001	5.051	0.291	597.741	1.001
22AUG83	0.001	2.731	3.661	567.101	0.001
29AUG83	0.001	2.311	5.641	285.261	0.001
05OCT83	0.001	6.751	3.951	275.491	0.001
13OCT83	0.001	1.391	0.331	71.331	0.001
11DEC83	0.001	2.941	0.301	13.821	0.001

Table A3. (Continued)

MOLLUSCS  
SUMMARY OF TOWS AT STATION DS  
MEAN OF 4 153 MICRON OBLIQUE TOWS IN NOS PER METER CUBED (STD ERROR)

DATE	Bivalve g	All Bivalves	Mytilidae	Dysters
19OCT82	0.00(	0.00(	0.00(	0.00(
17NOV82	14991.65(	14991.65(	0.00(	0.00(
30NOV82	4206.17(	4206.17(	0.00(	0.00(
08FEB83	186.42(	186.42(	0.00(	0.00(
29MAR83	151.05(	151.05(	0.00(	0.00(
23APR83	2.98(	2.98(	0.00(	0.00(
18MAY83	17.89(	17.89(	0.00(	0.00(
14JUN83	1342.67(	1342.67(	0.00(	0.00(
07JUL83	5120.14(	5120.14(	0.00(	0.00(
10AUG83	388.66(	388.66(	0.00(	0.00(
19SEP83	14.80(	17.85(	0.00(	0.00(
10DEC83	84.99(	86.13(	0.00(	0.00(



Table A3 (Continued)

OTHER INVERTEBRATES  
SUMMARY OF TOWS AT STATION 2  
MEAN OF 4 153 MICRON OBLIQUE TOWS IN NOS PER METER CUBED (STD ERROR)

LATE	Polychaeta Hapelonitidae	Polychaeta Spionidae	Polychaeta Trochophores Nectochaetes	Larvacea	Protanida
06FEB82	0.00(	0.46(	0.07(	0.00(	0.07(
09MAR82	0.00(	0.13(	0.08(	0.00(	0.00(
12APR82	0.00(	31.74(	0.00(	0.00(	0.00(
19APR82	5.72(	375.95(	0.00(	0.00(	0.00(
24MAY82	1.21(	202.84(	0.00(	0.14(	0.07(
30MAY82	0.00(	0.82(	0.00(	0.18(	0.00(
08JUN82	1.06(	6.56(	0.00(	0.59(	0.00(
21JUN82	0.00(	9.14(	5.38(	0.00(	0.02(
12JUL82	0.00(	0.49(	0.00(	1.47(	0.00(
30JUL82	0.00(	48.41(	0.00(	219.46(	0.00(
04AUG82	0.00(	1.08(	0.00(	459.29(	0.00(
18AUG82	0.00(	1.82(	0.00(	4.23(	0.04(
30AUG82	0.00(	2.60(	0.00(	2.66(	0.10(
16SEP82	0.00(	2.25(	0.00(	0.30(	0.00(
24SEP82	0.00(	5.46(	0.00(	0.28(	0.00(
07OCT82	0.30(	2.94(	0.17(	40.21(	0.00(
15OCT82	0.00(	2.41(	0.00(	0.14(	0.04(
29OCT82	0.00(	18.61(	3.51(	0.01(	0.04(
11NOV82	0.00(	20.04(	1.50(	76.62(	0.38(
28NOV82	0.00(	31.98(	0.10(	0.29(	0.00(
10DEC82	0.00(	22.11(	0.03(	4.69(	0.06(
22DEC82	0.00(	121.41(	0.00(	0.18(	0.00(
31JAN83	0.00(	1.19(	0.00(	0.00(	0.00(
09FEB83	0.00(	6.37(	0.01(	0.00(	0.06(
21FEB83	0.00(	1.01(	0.00(	0.00(	0.00(
10MAR83	0.00(	0.95(	0.00(	0.00(	0.00(
27MAR83	0.00(	679.15(	1.14(	0.00(	0.27(
11APR83	0.00(	255.63(	0.11(	0.00(	0.00(
27APR83	0.00(	247.79(	0.30(	0.00(	0.00(
11MAY83	0.00(	28.24(	0.05(	0.27(	0.00(
31MAY83	0.62(	97.00(	0.62(	0.31(	0.51(
13JUN83	0.00(	2.23(	0.48(	0.04(	0.00(
24JUN83	0.00(	29.21(	0.05(	39.79(	12.75(
13JUL83	0.00(	7.92(	0.97(	1268.40(	4.37(
28JUL83	0.00(	52.34(	1.83(	63.36(	10.76(
09AUG83	0.00(	2.26(	0.00(	771.21(	0.00(
28AUG83	0.00(	2.61(	94.74(	78.85(	0.00(
12SEP83	0.00(	28.59(	9.03(	95.38(	0.41(
03OCT83	0.00(	6.71(	14.19(	1317.76(	0.00(
13OCT83	0.00(	1.01(	0.05(	1.45(	0.00(
28OCT83	0.00(	0.05(	0.00(	0.22(	0.00(
18NOV83	0.00(	11.22(	0.12(	0.12(	0.00(
02DEC83	0.00(				

Table A3. (Continued)

MEAN OF 4 153 MICRON OBLIQUE TOWS IN NOS PER METER CUBED (STD ERROR)

OTHER INVERT. RATES

SUMMARY OF TOWS AT STATION 3

DATE	Polychaeta Magelloniidae	Polychaeta Spionidae	Polychaeta Terebratulidae Nectochaetes	Larvacea	Phoronida
16FEB82	0.001	1.261	0.271	0.001	0.501
19MAR82	0.001	0.091	0.101	0.001	0.001
22APR82	0.001	0.001	0.001	0.001	0.001
29APR82	0.001	0.001	0.001	0.001	0.001
24MAY82	0.591	190.481	0.001	1.511	1.181
30MAY82	0.001	22.861	0.001	0.721	0.221
28JUN82	0.001	6.701	0.001	0.501	0.001
11JUN82	0.001	0.941	0.371	0.631	0.701
22JUL82	0.001	1.371	0.021	0.231	0.101
30JUL82	0.001	0.261	0.001	30.611	0.151
04AUG82	0.001	0.171	0.001	114.821	0.231
18AUG82	0.001	0.211	0.001	33.541	0.001
30AUG82	0.171	0.261	0.001	23.771	0.071
16SEP82	0.001	4.321	0.001	2.711	0.001
24SEP82	0.001	2.271	0.001	0.751	0.041
07OCT82	0.001	21.081	0.171	37.561	0.001
15OCT82	0.001	8.821	0.501	0.961	0.091
29OCT82	0.001	5.691	0.331	0.001	0.041
11NOV82	0.001	46.881	0.801	55.531	0.001
24NOV82	0.971	38.971	0.001	0.981	0.001
10DEC82	0.001	10.991	0.081	0.751	0.001
22DEC82	0.001	73.201	0.001	0.001	0.001
31JAN83	0.001	0.611	0.111	0.001	0.001
07FEB83	0.001	2.311	0.171	0.001	0.001
21FEB83	0.001	10.931	3.151	0.001	0.001
10MAR83	0.001	0.161	4.101	0.001	0.001
24MAR83	0.031	5.441	0.171	0.221	0.041
11APR83	0.001	223.741	5.461	0.001	0.061
27APR83	0.001	388.521	20.081	0.001	0.071
11MAY83	0.001	8.151	0.001	0.001	0.001
31MAY83	0.001	36.511	17.351	0.241	0.191
24JUN83	0.831	71.761	0.071	1.841	3.511
13JUL83	0.001	64.431	36.831	806.031	39.091
28JUL83	0.001	84.421	2.031	313.311	4.111
09AUG83	0.001	5.451	2.471	28.571	3.831
26AUG83	0.001	2.381	1.121	523.511	0.471
12SEP83	0.001	12.851	240.671	185.681	0.701
03OCT83	0.001	8.441	0.791	26.111	0.001
23OCT83	0.001	37.021	27.831	1164.741	0.001
06NOV83	0.001	0.291	9.001	2.071	0.001
20NOV83	0.001	220.701	1.081	0.041	0.241
08DEC83	0.001	41.311	0.131	0.001	0.001

Table A3. (Continued)

OTHER INVERTEBRATES  
SUMMARY OF TOWS AT STATION 4  
MEAN OF 4 153 MICRON OBLIQUE TOWS IN NOS PER METER CUBED (STD ERROR)

DATE	Polychaeta Magelonidae	Polychaeta Spionidae	Polychaeta Terephorae Nectochaetes	Larvae	Phoronida
24MAR82	0.001	0.431	0.041	0.001	0.001
22APR82	0.001	0.001	0.001	0.001	0.001
29APR82	0.001	167.641	0.001	0.001	0.001
24MAY82	0.001	230.941	0.001	0.001	0.001
30MAY82	0.001	181.651	0.001	0.118	0.001
06JUN82	1189.141	0.391	0.001	0.391	0.001
21JUN82	0.001	1.641	10.271	0.001	6.331
12JUL82	0.001	0.761	0.001	1.481	0.001
30JUL82	0.001	1.231	0.001	23.791	0.251
04AUG82	0.001	1.661	0.001	2.421	0.081
18AUG82	0.001	0.861	0.031	1.221	0.161
30AUG82	0.001	3.721	0.001	2.571	0.201
16SEP82	0.001	4.201	0.001	0.041	0.011
24SEP82	0.001	3.081	1.741	0.811	0.061
07OCT82	0.001	0.891	0.341	10.491	0.071
15OCT82	0.001	2.211	0.621	0.151	0.031
29OCT82	0.001	20.011	0.131	0.001	0.001
11NOV82	0.031	13.011	0.551	47.061	0.721
10DEC82	0.151	54.391	0.221	1.131	0.111
31JAN83	0.001	44.561	0.001	0.001	0.001
09FEB83	0.001	56.371	0.051	0.001	0.001
10MAR83	0.001	0.921	1.201	0.001	0.001
11APR83	0.001	49.711	0.001	0.001	0.001
27APR83	0.001	626.361	20.411	0.001	0.001
11MAY83	0.001	144.831	30.001	0.001	0.001
31MAY83	0.001	20.901	0.001	0.001	0.001
24JUN83	0.001	3.561	1.681	0.001	0.001
13JUL83	2.711	81.291	1.521	9.891	10.541
24JUL83	0.001	2.221	2.011	1.841	1.681
09AUG83	0.351	46.881	2.561	5.371	9.851
26AUG83	0.001	2.281	0.031	18.291	0.321
12SEP83	0.001	5.691	1.231	534.201	0.541
03OCT83	0.001	126.331	5.991	157.961	0.441
13OCT83	0.001	1.981	3.101	348.381	0.071
28OCT83	0.001	2.411	0.111	0.071	0.001
18NOV83	0.001	12.521	0.331	0.001	0.001
16DEC83	0.001	4.331	0.021	0.001	0.001

Table A3. (Continued)

OTHER INVERTEBRATES  
SUMMARY OF TOWS AT STATION 5  
MEAN OF 4 153 MICRON OBLIQUE TOWS IN NOS PER METER CUBED (STD ERROR)

DATE	Polychaeta Magelonidae	Polychaeta Spionidae	Polychaeta Trochophores Nectochaetes	Larvacea	Phoronida
04MAR82	0.001	1.051	0.001	0.001	0.001
06MAR82	0.001	0.291	0.021	0.001	0.001
29APR82	0.001	83.611	11.221	0.001	0.001
23MAY82	0.001	84.671	41.301	0.001	0.001
29MAY82	0.001	0.881	0.571	0.001	0.001
11JUN82	0.161	0.001	0.001	0.001	0.001
22JUN82	0.001	0.981	0.421	0.001	0.001
12JUL82	0.001	2.431	1.521	0.351	0.001
30JUL82	0.001	1.691	0.761	0.811	0.101
06AUG82	0.001	1.651	0.481	0.001	0.001
18AUG82	0.001	0.981	0.451	0.071	0.001
31AUG82	0.001	6.011	1.261	0.201	0.261
17SEP82	0.001	5.701	1.541	0.041	0.001
23SEP82	0.001	0.871	0.301	0.091	0.001
06OCT82	0.001	1.561	0.651	0.081	0.001
14OCT82	0.001	0.661	0.121	0.001	0.101
28OCT82	0.001	12.681	8.271	0.001	0.001
12NOV82	0.001	3.361	0.981	0.131	0.001
09DEC82	0.001	2.661	0.771	0.001	0.001
18JAN83	0.001	18.791	4.211	0.011	0.001
07FEB83	0.001	43.381	10.531	0.331	0.001
10MAR83	0.001	12.281	0.691	0.131	0.001
11APR83	0.001	1160.651	328.221	0.001	0.001
29APR83	0.001	1105.671	281.681	20.411	0.001
26MAY83	0.001	70.781	20.331	0.511	0.001
30MAY83	0.001	194.531	62.701	0.181	0.031
21JUN83	0.001	1.901	0.301	0.001	0.001
12JUL83	0.001	631.741	585.671	0.001	6.771
29JUL83	0.001	10.061	3.761	0.711	0.071
12AUG83	1.291	40.271	8.761	0.001	0.581
25AUG83	0.001	4.391	0.971	0.071	0.861
13SEP83	0.001	518.811	67.551	1.401	0.301
26SEP83	0.001	23.121	15.191	0.441	0.301
14OCT83	0.001	76.891	45.131	0.331	0.261
28OCT83	0.001	19.781	5.801	0.001	0.001
23NOV83	0.001	1.771	1.111	0.041	0.111
16DEC83	0.001	28.561	7.041	0.001	0.381

Table A3. (Continued)

OTHER INVERTEBRATES  
SUMMARY OF TOWS AT STATION 6  
MEAN OF 4 153 MICRON OBLIQUE TOWS IN NOS PER METER CUBED (STD ERROR)

DATE	Polychaeta Magelonidae	Polychaeta Spionidae	Polychaeta Trochophores Nectochaetes	Larvacea	Phoronida
05MAR82	0.001	0.021	0.001	0.001	0.001
26MAR82	0.001	0.261	0.011	0.001	0.001
29APR82	0.001	60.101	0.051	0.001	0.001
29MAY82	0.001	3.521	2.801	0.001	0.001
11JUN82	0.001	0.161	0.071	0.001	0.001
22JUN82	0.001	0.591	0.431	0.001	0.031
12JUL82	0.001	3.611	0.541	0.171	0.071
31JUL82	0.001	22.021	15.311	0.211	0.001
06AUG82	0.001	3.861	1.381	0.201	0.021
19AUG82	0.001	1.821	0.681	0.181	0.001
31AUG82	0.001	1.381	0.961	0.321	0.001
20SEP82	0.001	1.541	0.591	0.081	0.001
23SEP82	0.001	2.441	0.861	0.191	0.001
06OCT82	0.001	0.561	0.281	0.001	0.001
14OCT82	0.001	0.991	0.281	0.001	0.001
28OCT82	0.001	6.881	2.251	0.021	0.001
12NOV82	0.001	4.591	0.901	0.051	0.001
09DEC82	0.001	2.901	0.271	0.001	0.001
18JAN83	0.001	81.441	6.771	0.001	0.001
07FEB83	0.001	181.601	48.451	0.001	0.001
08MAR83	0.001	436.931	314.861	0.171	0.071
06APR83	0.001	864.991	156.031	0.391	0.001
29APR83	0.001	232.621	61.461	0.001	0.001
26MAY83	0.001	69.171	17.901	0.001	0.041
30MAY83	0.001	42.441	31.091	0.001	0.001
21JUN83	0.001	10.791	8.371	0.001	0.211
12JUL83	0.371	11.191	3.171	0.001	0.001
29JUL83	0.001	0.381	0.281	0.001	0.001
12AUG83	0.001	5.781	5.291	0.091	0.051
25AUG83	0.001	13.701	5.611	0.001	0.001
13SEP83	0.001	209.071	60.421	1.191	0.001
26SEP83	0.001	71.501	68.241	1.591	0.001
14OCT83	0.001	1327.831	396.331	22.411	0.001
26OCT83	0.001	19.761	8.791	0.061	0.001
23NOV83	0.001	1.131	0.361	0.031	0.001
16DEC83	0.001	67.991	11.001	0.001	0.001

Table A3. (Continued)

OTHER INVERTEBRATES  
SUMMARY OF TOWS AT STATION 7  
MEAN OF 4 153 MICRON OBLIQUE TOWS IN NOS PER METER CUBED (STD ERROR)

DATE	Polychaeta Magelonidae	Polychaeta Spionidae	Polychaeta Trochophores Nectochaetes	Larvacea	Phoronida
05MAR82	0.00(	0.55( 0.33)	0.00(	0.00(	0.00(
29APR82	0.00(	125.95( 31.10)	0.00(	0.00(	0.00(
23MAY82	0.00(	31.83( 10.31)	0.00(	0.00(	0.00(
29MAY82	0.00(	1.27( 0.76)	0.00(	0.00(	0.00(
15JUN82	0.00(	0.35( 0.24)	0.00(	0.00(	0.00(
22JUN82	0.00(	0.23( 0.11)	0.00(	0.00(	0.00(
13JUL82	0.00(	0.37( 0.23)	0.00(	0.06( 0.06)	0.09( 3.09)
31JUL82	0.00(	4.63( 1.49)	0.04( 0.04)	0.02( 0.02)	0.00(
06AUG82	0.00(	1.99( 1.13)	0.00(	0.00(	0.12( 3.12)
19AUG82	0.00(	0.85( 0.39)	0.00(	0.08( 0.08)	0.37( 0.07)
31AUG82	0.00(	8.23( 6.00)	0.00(	0.00(	0.00(
17SEP82	0.00(	1.06( 1.06)	0.00(	0.54( 0.54)	0.00(
23SEP82	0.00(	2.04( 1.78)	0.00(	0.00(	0.00(
06OCT82	0.00(	183.34( 179.84)	0.26( 0.20)	0.00(	0.00(
14OCT82	0.01( 0.01)	0.14( 0.01)	0.01( 0.01)	0.00(	0.00(
28OCT82	0.00(	2.06( 0.31)	0.00(	0.00(	0.00(
12NOV82	0.00(	0.98( 0.58)	0.09( 0.05)	0.00(	0.00(
09DEC82	0.00(	3.20( 1.57)	0.00(	0.00(	0.00(
18JAN83	0.00(	5.51( 1.39)	0.00(	0.04( 0.04)	0.00(
07FEB83	0.00(	352.81( 88.80)	0.04( 0.04)	0.00(	0.00(
08MAR83	0.00(	571.43( 124.67)	0.42( 0.16)	0.00(	0.00(
06APR83	0.00(	248.98( 81.10)	1.43( 1.03)	0.00(	0.00(
26MAY83	0.00(	14.82( 7.09)	0.00(	0.00(	0.00(
30MAY83	0.00(	16.63( 6.18)	0.00(	0.00(	0.00(
21JUN83	0.00(	0.72( 0.26)	3.81( 3.24)	0.00(	0.00(
12JUL83	0.00(	78.92( 60.21)	0.07( 0.07)	0.00(	0.00(
25JUL83	0.00(	0.65( 0.26)	3.10( 3.10)	3.10( 3.10)	0.00(
12AUG83	0.05( 0.05)	219.24( 36.54)	0.00(	0.00(	0.00(
25AUG83	0.00(	251.87( 170.58)	0.60( 0.55)	0.00(	0.00(
13SEP83	0.00(	732.94( 191.38)	5.82( 2.75)	3.21( 3.21)	0.00(
26SEP83	0.00(	139.22( 58.34)	7.29( 6.03)	8.66( 8.66)	0.00(
14OCT83	0.00(	616.71( 244.25)	0.24( 0.24)	25.04( 25.04)	0.00(
26OCT83	0.00(	67.97( 15.05)	0.11( 0.11)	0.25( 0.25)	0.00(
23NOV83	0.00(	1.99( 0.47)	0.00(	0.02( 0.02)	0.00(
16DEC83	0.00(	13.82( 2.06)	0.00(	0.00(	0.00(

Table A3. (Continued)

OTHER INVERTEBRATES  
SUMMARY OF TOWS AT STATION 8  
MEAN OF 4 153 MICRON OBLIQUE TOWS IN NOS PER METER CUBED (STD ERROR)

DATE	Polychaeta Magelonidae	Polychaeta Spionidae	Polychaeta Trochophores Nectochaetes	Larvacea	Phoronida
20OCT82	11.72(	5.67)	0.73(	1.29(	0.00(
18NOV82	0.00(	32.48)	0.00(	1.29)	0.00(
30NOV82	0.00(	66.83(	0.00(	0.00(	0.00(
26JAN83	0.00(	11.20)	0.83(	0.00(	0.00(
09FEB83	0.00(	0.71)	0.96(	1.91(	0.00(
30MAR83	0.00(	0.61(	0.00(	0.00(	0.00(
21APR83	0.00(	0.28)	0.00(	0.00(	0.00(
19MAY83	0.00(	93.31(	0.00(	0.00(	0.00(
16JUN83	0.00(	74.62)	0.00(	0.00(	0.00(
08JUL83	0.00(	42.84(	0.00(	0.00(	0.00(
11AUG83	0.00(	27.22)	0.00(	0.00(	0.00(
20SEP83	0.00(	1010.56(	0.00(	0.00(	0.00(
02NOV83	0.00(	255.07)	0.00(	0.00(	0.00(
23NOV83	0.00(	2.06(	0.00(	0.00(	0.00(
10DEC83	0.00(	1.68)	0.00(	0.00(	0.00(
		0.58)	0.00(	0.00(	0.00(
		0.78(	0.00(	61.73(	0.00(
		0.14)	0.00(	61.73)	0.00(
		0.14)	0.00(	0.03(	0.00(
		0.54)	0.24(	0.03)	0.00(
		0.44)	0.86(	89.28(	0.38(
		0.50)	0.51(	938.73(	0.78(
		0.26)	0.00(	938.73)	0.00(
		10.46)	0.16(	0.00(	0.00(
			0.10(	0.61(	0.00(
			0.10)	6.23(	0.00(
				6.23)	0.00(

Table A3. (Continued)

OTHER INVERTEBRATES  
SUMMARY OF TOWS AT STATION 9  
MEAN OF 4 153 MICRON OBLIQUE TOWS IN NOS PER METER CUBED (STD ERROR)

DATE	Polychaeta Hagelionidae	Polychaeta Spionidae	Polychaeta Terephonophores Nectochaetes	Larvacea	Phoronida
30JUN82	18.08(	543.61( 104.86)	0.00(	0.00(	0.00(
22JUL82	0.00(	0.06( 0.06)	0.00(	178.06( 178.06)	0.00(
12AUG82	0.00(	4.93( 1.29)	0.00(	484.98( 484.98)	0.00(
09SEP82	0.00(	0.14( 0.14)	0.00(	0.16( 0.16)	0.00(
20OCT82	34.60( 10.84)	164.59( 5.44)	0.00(	0.00(	0.00(
18NOV82	0.00(	101.31( 12.18)	1.81( 1.57)	0.00(	0.00(
24NOV82	0.02( 0.02)	10.19( 3.27)	0.00(	0.15( 0.15)	0.00(
30NOV82	0.00(	0.05( 0.04)	0.48( 0.43)	0.00(	0.00(
22DEC82	0.00(	13.62( 3.09)	0.00(	0.00(	0.00(
26JAN83	0.00(	3.44( 0.26)	1.14( 0.18)	0.00(	0.00(
21FEB83	0.00(	26.57( 5.06)	3.04( 3.04)	0.00(	0.00(
30MAR83	0.00(	28.43( 16.09)	0.00(	0.00(	0.00(
21APR83	0.00(	1122.51( 613.20)	0.00(	0.00(	0.00(
27APR83	0.00(	164.12( 159.95)	0.00(	112.47( 112.47)	1.61( 1.61)
19MAY83	0.00(	0.29( 0.29)	0.00(	0.00(	0.00(
16JUN83	0.30( 0.26)	0.75( 0.21)	0.00(	46.07( 46.07)	0.00(
08JUL83	0.00(	0.62( 0.23)	0.88( 0.88)	9.18( 9.18)	0.11( 0.11)
28JUL83	0.00(	49.54( 40.02)	14.09( 14.09)	5771.80( 5771.80)	11.23( 11.23)
11AUG83	0.00(	2.04( 0.31)	0.00(	1.34( 1.34)	0.33( 0.33)
26AUG83	0.00(	7.29( 1.88)	11.67( 7.71)	1.33( 1.33)	0.00(
20SEP83	0.00(	1.02( 0.45)	1.67( 0.84)	571.44( 571.44)	0.12( 0.12)
03OCT83	0.00(	5.76( 2.72)	0.83( 0.83)	7.81( 7.81)	0.00(
02NOV83	0.00(	1.95( 0.49)	0.00(	0.33( 0.33)	0.00(
18NOV83	0.00(	126.38( 24.82)	2.18( 0.57)	0.00(	0.11( 0.11)
23NOV83	0.00(	15.46( 5.00)	0.57( 0.38)	2.29( 2.29)	0.00(
10DEC83	0.00(	83.45( 43.22)	0.00(	0.00(	0.00(



Table A3. (Continued)

OTHER INVERTEBRATES  
SUMMARY OF TOWS AT STATION 10  
MEAN OF 4 153 MICRON OBLIQUE TOWS IN NOS PER METER CUBED (STD ERROR)

DATE	Polychaeta Magelonidae	Polychaeta Spionidae	Polychaeta Trochophores Nectochaetes	Larvacea	Phoronida
20OCT82	16.05(	7.92)	50.78( 4.13)	0.07( 0.07)	0.00( . )
18NOV82	0.00( . )	79.38( 15.06)	0.00( . )	0.00( . )	0.00( . )
30NOV82	0.00( . )	65.92( 5.54)	0.00( . )	0.00( . )	0.00( . )
26JAN83	0.00( . )	3.36( 1.36)	0.00( . )	0.00( . )	0.00( . )
30FEB83	0.00( . )	682.32( 239.07)	0.00( . )	0.00( . )	0.00( . )
21APR83	0.00( . )	435.32( 97.49)	0.00( . )	0.00( . )	0.00( . )
19MAY83	0.00( . )	30.14( 22.66)	36.94( 36.94)	0.00( . )	0.00( . )
16JUN83	0.00( . )	17.47( 16.71)	0.80( 0.23)	0.83( 0.33)	0.00( . )
08JUL83	0.00( . )	1.29( 0.65)	0.00( . )	159.82( 159.82)	0.20( 0.20)
11AUG83	0.20( 0.20)	16.24( 1.77)	1.41( 0.43)	37.65( 37.65)	4.23( 4.23)
20SEP83	0.00( . )	1.69( 0.61)	1.52( 0.23)	41.24( 41.24)	0.00( . )
02NOV83	0.00( . )	0.20( 0.09)	0.00( . )	1.63( 1.63)	0.00( . )
11DEC83	0.00( . )	3.38( 1.43)	0.00( . )	29.85( 29.85)	0.00( . )

Table A3. (Continued)

OTHER INVERTEBRATES  
SUMMARY OF TOWS AT STATION DS  
MEAN OF 4 153 MICRON OBLIQUE TOWS IN NOS PER METER CUBED (STD ERROR)

DATE	Polychaeta Mageloniidae	Polychaeta Spionidae	Polychaeta Trochophores Nectochaetes	Larvae	Phoronida
15OCT82	0.00(	0.88(	0.00(	0.26(	0.30(
17NOV82	0.00(	180.51(	3.00(	41.52(	0.30(
30NOV82	0.00(	0.45(	1.02(	0.15(	0.30(
09FEB83	0.00(	0.38(	0.00(	0.00(	0.30(
29MAR83	0.00(	1.06(	0.00(	0.00(	0.30(
23APR83	0.00(	1.63(	0.06(	0.00(	0.30(
18MAY83	0.00(	0.30(	0.00(	0.00(	0.30(
14JUN83	0.00(	2.58(	0.00(	118.72(	0.30(
07JUL83	0.00(	0.00(	0.00(	234.07(	0.82(
10AUG83	0.00(	0.08(	0.00(	5.68(	0.00(
19SEP83	0.00(	0.84(	0.06(	12.53(	0.30(
10DEC83	0.00(	1.33(	0.00(	8.39(	0.00(

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